ABOUT THE DEPARTMENT

School of Studies in Chemistry

The **School of Studies in Chemistry** is one of the oldest and most distinguished departments of the University, established in 1972 under the visionary leadership of **Late Professor Shiv Gopal Tandon**. Since its inception, the department has grown into a center of excellence in teaching and research, gaining national and international recognition under the stewardship of eminent scholars such as Late Prof. R.K. Mishra, Late Prof. V.K. Gupta, Late Prof. G.L. Mundhara, Prof. Rama Pande, Prof. K.S. Patel, Prof. Kallol K. Ghosh, Prof. Manas Kanti Deb, Prof. Shamsh Pervez and Prof. Manish Rai. The legacy of academic excellence continues, shaped by the invaluable contributions of distinguished faculty members such as the late Dr. G.S. Pandey, the late Dr. J.S. Tiwari, and Prof. S.A. Bhoite, and carried forward by the third generation of dedicated teachers including Prof. Kamlesh Shrivas, Dr. Manmohan Lal Satnami, and Dr. Indrapal Karbhal. The department offers postgraduate (M.Sc.) and doctoral (Ph.D.) programs in Chemistry, with a strong emphasis on both theoretical and experimental aspects. Most of the faculty members are actively engaged in diverse research areas such as environmental atmospheric chemistry, air quality monitoring and analysis, climate change, characterization of wet and dry precipitation, atmospheric organics including carbonaceous fractions, VOCs, PAHs, and receptor modelling for source characterization, nanotechnology and synthesis and applications of nanomaterials, micellar and surface chemistry **,**detoxification of pesticides and chemical warfare agents , enzyme kinetics, microplastic, pesticide chemistry, electrochemical sensors, energy storage and supercapacitors etc. The department has successfully executed numerous extramural major and minor research projects funded by premier national agencies such as UGC, DST-SERB/ANRF, ISRO, CSIR, DRDO, MoEF, CCOST, and MAPCOST. Faculty members actively contribute to national and international research, with over 1000 publications in reputed international journals and more than 200 national publications. The department regularly organizes training programs, workshops, and field visits . It has been the proud recipient of **DST-FIST grants** (2003–2008 and 2015–2020) and **UGC SAP** assistance (2010–2015 and 2016–2021), significantly boosting its research infrastructure. Since 1972, the department has hosted ten international and twenty-five national conferences, seminars, and symposia in the fields of chemical and environmental sciences.

The school is equipped with modern laboratories and advanced facilities, supporting experimental research, practical training, and innovation. Dedicated faculty workspaces and specialized laboratories—such as the **Analytical Instrumentation Laboratory (DST PURSE Laboratory)** and teaching laboratories for Organic, Inorganic, Physical, and Analytical Chemistry—enhance the learning environment for MSc students. Recent funding of Rs. 10 crore from the **DST PURSE program** has further strengthened the department's research infrastructure, which includes a comprehensive suite of sophisticated instruments such as: UV-VIS Spectrophotometers ,HPLC ,Triple Quadrupole GC-MS ,Spectrofluorometers ,Ion Chromatography Systems ,Atomic Absorption Spectrophotometers, Tensiometers ,SEM ,Potentiostats ,OC/EC Analysers ,FTIR Imaging Spectrometers ,Zeta Sizers ,BET Surface Area Analyzers, VOC PID Sensing Monitors ,Steady-State Fluorescence Spectrophotometers, Electrospinning Machines , Muffle and Tubular Furnaces ,3D Printers, BTEX GC-Based Monitors ,High-Volume Samplers ,Battery Analysers, TLD/Glove Boxes, Rotary Evaporators, among others. These facilities form a robust platform for high-impact research and scientific advancement. The department has signed several memorandums of understanding with several national institutes. The department has established notable international research collaborations, including with:NASA, USA, Desert Research Institute, Reno, NV, USA ,Chinese Academy of Sciences, Xi'an, China ,Moscow State University, Russia, University of Hradic Kralove , Czech Republic etc. Domestically, the department has partnered with leading institutions such as: Indian Institute of Tropical Meteorology, New Delhi, National Environmental Engineering Research Institute (NEERI), Mumbai, Defense Research & Development Establishment, Gwalior, Central Drug Research Institute (CDRI), Lucknow, Institute of Science, Nagpur, Birla Institute of Technology and Science (BITS), Pilani etc. Over the years, the department has awarded **more than 500 Ph.D.** and **about 50 M.Phil.** degrees. A large number of its students have qualified national-level examinations such as **NET**, **GATE**, and **SET**, and have secured placements in academia and industry both in India and abroad. More than **90% of graduates** have successfully transitioned into professional roles, particularly within **Chhattisgarh**, across **India**, and internationally. Eminent scientists and researchers frequently visit the department to deliver lectures and interact with students, enriching the academic environment and promoting a culture of scientific inquiry.

TEACHING FACULTY

S. N.		Name	Design-ation	Specialization	h-Index	Citation	Total Publi-cation
1.		**Dr. Kallol K. Ghosh** M.Sc., Ph.D., JSPS fellow, James Chair Visiting Fellow, Canada	**Professor & Head**	Physical Chemistry, Physical Organic & Surface Chemistry	36	4364	**240**
2.		**Dr. Manas Kanti Deb** M.Sc., Ph.D., JSPS fellow	Professor	Analytical Chemistry, Environmental Chemistry	38	4575	**180**
3.		**Dr. Shamsh Pervez** M.Sc., Ph.D., US Fulbright Research Fellow	Professor	Physical Chemistry, Environmental Sciences, Air Quality Monitoring & Modelling, Waste Water Treatment	32	2728	**112**
4.		**Dr. Manish K. Rai** M.Sc., Ph.D.	Professor	Organic Chemistry & Environmental Science	17	1259	**110**
5.		**Dr. Kamlesh K. Shrivas** M.Sc., Ph.D., JSPS, ORISE Fellow	Professor	Analytical Chemistry, Chemical Sensor & Mass Spectrometry	43	5063	**122**
6.		**Dr. Manmohan Lal Satnami** M.Phil., Ph.D., TWAS Fellow	Associate Professor	Inorganic Chemistry Nanomaterials & Physical Organic Chemistry	29	2326	**88**
7.		**Dr. Indrapal Karbhal** M.Sc., Ph.D., CSIR-UGC-NET, JRF	Assistant Professor	Inorganic Chemistry Nanomaterials & Nanotechnology, Physical Organic Chemistry, Energy Storage	21	1800	**38**

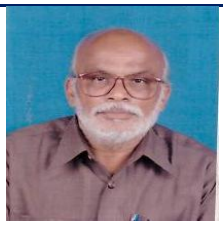
GUEST FACULTY

S. N.		Name	Designation	Specialization	h-Index	Citation	Total Publications
1		**Dr. Bhuneshwari Sahu** M.Sc., M.Phil., Ph.D.	Assistant Professor (Guest)	Nanomaterials & Nanotechnology, Organic Chemistry	09	353	**11**
2.		**Dr. Vandana Singh** M.Sc., M.Phil., Ph.D.	Assistant Professor (Guest)	Inorganic Chemistry	02	13	**07**

SUPERANNUATED FACULTY

1.		**Prof. Rama Pande** **UGC BSR FELLOW (2016-2021)**	Superannuated Professor 31.07.2016	Organic Chemistry & Physical Organic Chemistry, Drug Designing for Anticancer Activity
2.		**Prof. K. S. Patel** **UGC BSR FELLOW (2016-2021)**	Superannuated Professor 15.11.2016	Analytical Chemistry, Environmental Chemistry
3.		**Prof. S.A. Bhoite**	Superannuated Professor 02.04.2018	Physical Chemistry, Nuclear Chemistry and Chemical Kintecs

FORMER FACULTY

1.		**Dr. S. G. Tandon**	Retired Professor	Physical Chemistry
2.		**Dr. R. K. Mishra**	Retired Professor	Analytical Chemistry & Environmental Chemistry
3.		**Dr. V. K. Gupta**	Retired Professor	Analytical Chemistry & Organic Chemistry
4.		**Dr. J. S. Tiwari**	Retired Reader	Natural Products
5.		**Dr. G. S. Pandey**	Retired Reader	Co-ordination Chemistry & Environmental Chemistry
6.		**Dr. G. L. Mundhara**	Retired Professor	Inorganic Chemistry

NON-TEACHING STAFF

S.N.		NAME	DESIGNATION
1.		MR. BANSHIDHAR JHA	LAB TECHNITION
2.		MRS. VIBHA KERKETTA	LAB TECHNITION
3.		MR. PRAMOD PRASAD CHOUDHARY	GAS MECHANIC
4.		MR. RAMESH KUMAR VERMA	LDC
5.		MRS. DOLLY PATHAK	LDC (CONTRACT)
6.		MR. RAJIV KUJUR	LAB ATTENDANT
7.		MR. AASHISH RAJPUT	MUSEUM ATTENDANT
8.		MRS. BEENA	PEON
9.		MR. KESHBO TANDI	PEON (DAILY WAIGES)

INVOLVEMENT IN UNIVERSITY & STATE LEVEL ACTIVITY

S. N.	Faculty	Professional Society / Other Responsibility/ Contribution in University Administration & State level Activity
1.	Prof. Kallol K Ghosh	Head School of Studies in Chemistry Director, Centre for Basic Sciences, Former Member Purchase Committee, (2021-2023), Member IQAC Former Dean Faculty of Science, Bronze Medal CRSI, B N Ghosh Medal Indian Chemical Society Member: Executive Council, Pt. Ravishankar Shukla University Editor: Journal of Ravishankar University (Science), NAAC Assessor Coordinator, Public Outreach Centre, Joint Secretary CRSI, Council Member Indian Chemical Society, Vice President, Indian Society for Surface Science Technology.
2.	Prof. Manas Kanti Deb	Director, NCNR, Pt. Ravishankar Shukla University Head: School of Studies in Environmental Science, Pt. Ravishankar Shukla University Coordinator, DST-PURSE Promotion of University Research and Scientific Excellence Editor in Chief: Journal of Ravishankar Shukla University, Coordinator MOU Committee Member Task Force C G Planning Board
3.	Prof. Shamsh Pervez	US Fulbright Research Fellow; Chairman Studies, Chemistry Co-Coordinator, DST-PURSE Promotion of University Research and Scientific Excellence, Elected President, University Teacher Association, Air Quality Expert consultant & Collaborator, Washington University, St. Louis & DRI, Coordinator: Task Force Ambient Air Quality, C G State Planning Commission
4.	Prof. Manish K Rai	State Academic Co-ordinator, Department of Science and Technology, Govt. of Chhattisgarh, NCSC-DST, Govt. of India, New Delhi Member of Indian Chemical Society, Member of Indian Council of Chemists, Member of Chemiluminscence Society of India, Member of Royal Society of Chemistry
5.	Prof. Kamlesh K. Shrivas	Listed in Worlds top 2% Indian Scientists (Year-2024 by Stanford University) in Analytical Chemistry, Teacher In-charge of Student Union, Chairman: Board of Studies, Chhemistry 
6.	Dr. Manmohan Lal Satnami	UGC Research Award 2016-2018, CRSI young Scientists Award 2018, Warden of Power Grid Hostel and Research Scholar Hostel
7.	Dr. Indrapal Karbhal	Coordinator IDP, Member of IQAC, NIRF, IIC.

POPULARITY INDEX

ENTRANCE TEST

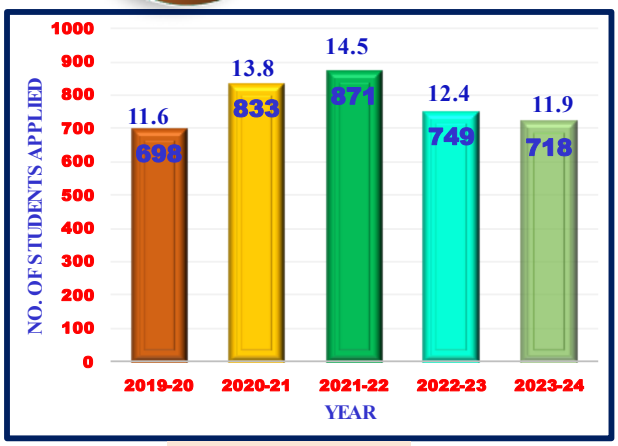
~770

60

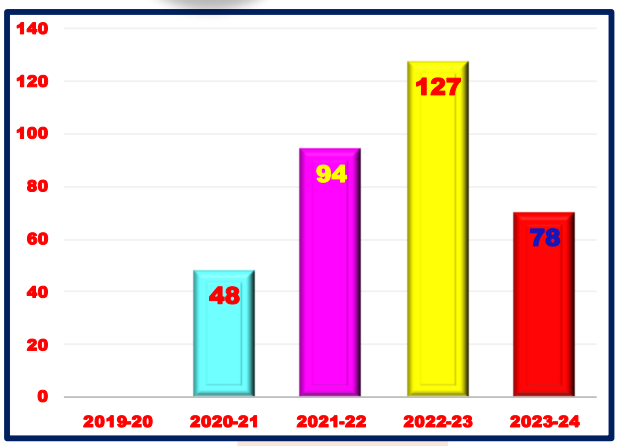
35

25

Payment Seat

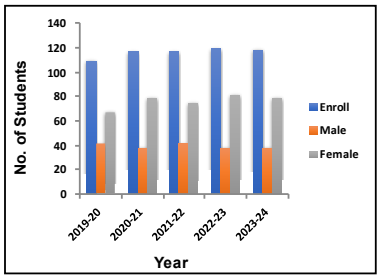


M.Sc. (Chemistry)

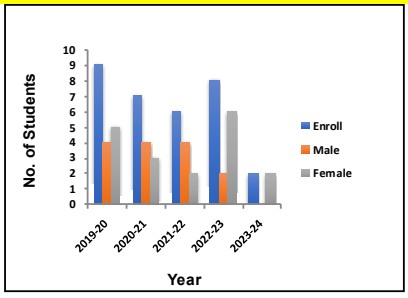


Ph.D. (Chemistry)

Enrollment Statistics (2019-2024)

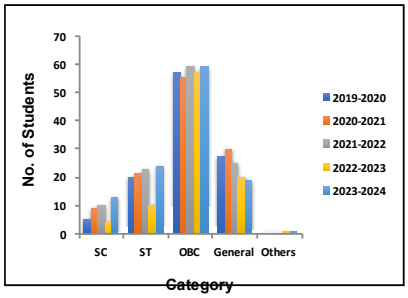


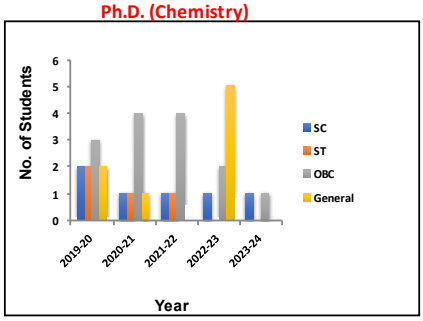
M.Sc. (Chemistry)



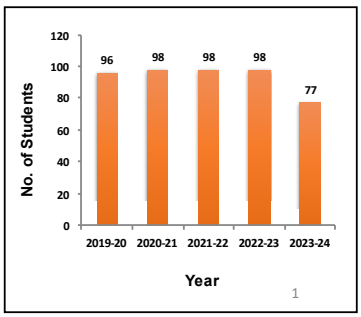
Ph.D. (Chemistry)

SC- 12%
ST- 32%
OBC- 14%
GEN- 36%
PH-/ FF 6%





Pass %

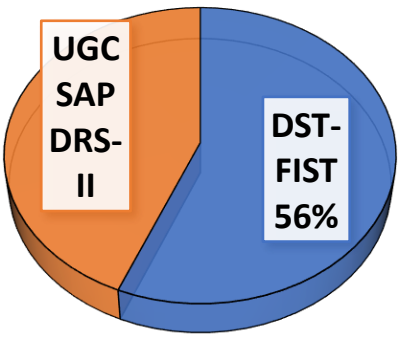


DEPARTMENTAL PROJECTS

COMPLETED PROJECTS

(2019-2024)

S. N.	Project Title	Funding Agency	Amount Received	Duration	Name of Co-ordinators
1.	Environmental Chemistry, QSAR and Drug Designing for Antitumor/ Anticancer activity, Surface Science and Interfacial Reactivity & Nanomaterials and Conjugation of Medicinally Important Bio-Molecules	DST-FIST SR/FST/CSI-259/2014 Amount Released Rs. 122.5 Lakh	Rs. 165 Lakh	2015-2020	Prof. Kallol K. Ghosh Prof. Manas Kanti Deb Prof. Shamsh Pervez
2.	Biogeo-Environmental Pathways, Nanochemistry and Associated Climate Change Involved with Pollutants	UGC-SAP/DRS-II, F.540/7/DRS-II/2016 Amount Released Rs, 94.65 Lakh	Rs. 128 Lakh	2016-2021	Coordinator: Prof. Kallol K. Ghosh Dy. Coordinator: Prof. Manas Kanti Deb



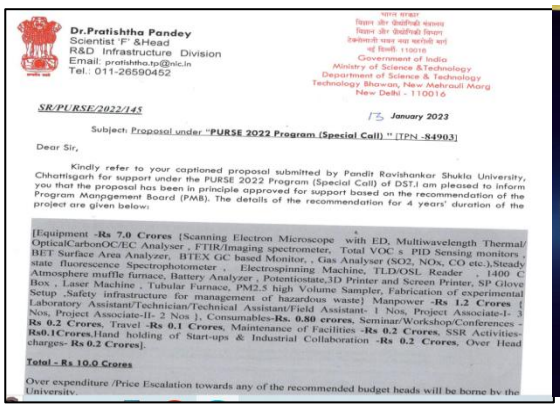
Rs. 283 Lakh

TOTAL SANCTIONED AMOUNT

UNIVERSITY PROJECTS

DST-PURSE

S. N	Project Title	Funding Agency	Amount Received	Duration	Name of Co-ordinators
1.	Integrative Approach towards Developing Sensing, Measurement Devices and Mitigation Methods for Environmental Pollutants known for Potential Impact on Health and Climate Change	DST-PURSE Promotion of University Research and Scientific SR/PURSE/2022/145	Rs. 10 CRORES	2023-2026	Coordinator: Prof. Manas Kanti Deb Co-Coordinator: Prof. Shamsh Pervez Prof. Durga Prasad Bisen



Dr.Pratishtha Pandey
Scientist 'F' &Head
R&D Infrastructure Division
Email: pratishtha.tp@nic.in
Tel.: 011-26590452

Government of India
Ministry of Science &Technology
Department of Science & Technology
Technology Bhawan, New Mehrauli Marg
New Delhi - 110016

SR/PURSE/2022/145

15 January 2023

Subject: Proposal under "PURSE 2022 Program (Special Call) " [TPN -84903]

Dear Sir,

Kindly refer to your captioned proposal submitted by Pandit Ravishankar Shukla University, Chhattisgarh for support under the PURSE 2022 Program (Special Call) of DST.I am pleased to inform you that the proposal has been in principle approved for support based on the recommendation of the Program Manpgement Board (PMB). The details of the recommendation for 4 years' duration of the project are given below:

[Equipment -**Rs 7.0 Crores** {Scanning Electron Microscope with ED, Multiwavelength Thermal/ OpticalCarbonOC/EC Analyser , FTIR/Imaging spectrometer, Total VOC s PID Sensing monitors , BET Surface Area Analyzer, BTEX GC based Monitor, , Gas Analyser (SO2, NOx, CO etc.),Steady state fluorescence Spectrophotometer , Electrospinning Machine, TLD/OSL Reader , 1400 C Atmosphere muffle furnace, Battery Analyzer , Potentiostate,3D Printer and Screen Printer, SP Glove Box , Laser Machine , Tubular Furnace, PM2.5 high Volume Sampler, Fabrication of experimental Setup ,Safety infrastructure for management of hazardous waste} Manpower -**Rs 1.2 Crores** [Laboratory Assistant/Technician/Technical Assistant/Field Assistant- 1 Nos, Project Associate-I- 3 Nos, Project Associate-II- 2 Nos], Consumables-**Rs. 0.80 crores**, Seminar/Workshop/Conferences - **Rs0.1Crores**,Hand holding of Start-ups & Industrial Collaboration -**Rs 0.2 Crores**, SSR Activities- charges- **Rs 0.2 Crores**].

Total - Rs 10.0 Crores

Over expenditure /Price Escalation towards any of the recommended budget heads will be borne by the University.

COMPLETED PROJECTS

(2019-2024)

S. N.	Project Title	Funding Agency	Amount Received	Duration	Name of Co-ordinators
1.	Evaluation of Biomass Burning Emissions to Address Sources of Atmospheric Brown Carbon and Associated Impacts on Regional Climate	Science & Engineering Research Board (SERB)-DST	Rs. 55 Lakh	2018-2021	Prof. Shamsh Pervez
2.	Design and development of low cost paper based printed electrochemical and colorimetric sensors	Science & Engineering Research Board (SERB)	Rs. 40.33 Lakh	2018-2021	Dr. Kamlesh Kumar Shrivas
3.	Nanomaterial-Based Optical and Electrochemical Biosensors for Detection of Simulants of Warfare Nerve Agents	Science & Engineering Research Board (SERB), New Delhi	Rs. 27.49 Lakh	2018-2021	Dr. Manmohan Lal Satnami
4.	AI-Driven Financial Empowerment: FinTech for All: Improving Financial Literacy & Inclusion in the Scheduled Tribe Community	IIT Bhilai Innovation and Technology Foundation, Bhilai National Mission on Interdisciplinary Cyber- Physical System, DST, Govt. of India	Rs. 1.33 Crore	2023-2024	Co-PI Prof. Kallol K. Ghosh, Dr. Indrapal Karbhal
5.	Traditional knowledge of Medicinal Plants consumed by Primitive Tribes of Bastar Chhattisgarh: Development of database and strategy for value addition and sustainable livelihood via Fin-tech.	IIT Bhilai Innovation and Technology Foundation, Bhilai National Mission on Interdisciplinary Cyber- Physical System, DST, Govt. of India	Rs. 40.23 Lakh	2023-2025	Co-PI Dr. Indrapal Karbhal

ONGOING PROJECTS

(2019-2024)

S.N.	Project Title	Funding Agency	Amount Received	Duration	Name of Coordinators
1.	Emission Characterization and Removal Studies of Hazardous Gaseous Pollutants at Domestic Heating Sources Using Novel Approaches of Functionalize Carbon Fiber-Based Materials	Science & Engineering Research Board (SERB)-DST	Rs. 79.91 Lakh	2023-2026	Prof. Shamsh Pervez & Dr. Indrapal Karbhal
2.	Fluorescence Resonance Energy Transfer (FRET) Pairs of Carbon Dots and Nanomaterials for Sensing and Imaging Applications	Science & Engineering Research Board (SERB), New Delhi	Rs. 50.26 Lakh	2023-2026	Dr. Manmohan Lal Satnami
3.	Development of Nanosensor for Detection of Harmful Microorganism and Chemical Substances from Food and Environmental Samples	Chhattisgarh Council of Science and Technology	Rs. 4 Lakh	2023-2026	Prof. Kamlesh Kumar Shrivas

The Apex Review Committee Recommended Category B with Rs. 2 Crore Funding for Capacity Building, Mentorship , Training of the PhD Students of the Spoke Institutions.
Our Hub : IIT Hyderabad
Theme : Partnerships in Research for Advanced Technologies in Healthcare, AI, Materials & Energy

Support for Upgradation Preventive Repair && Maintenance of Equipment" (SUPREME-2025) to provide financial support for repair/ upgradation/ maintenance/ . Theme : Separation & Extraction Technique

PATENT DETAILS

S. No.	Name of the Applicant	Title of the patent	Patent No. /Application No	File Date	Date published	Status
1	Kamlesh Shrivas, Tikeshwari, Sanyukta Patel, Tushar Kant, . Santosh Singh, Thakur, Kiran Thakur	Paper-based colorimetric device for riboflavin detection in foods	436493-001 (Design Patent)	05/11/2024	07/01/2025	Granted
2	Kamlesh Shrivas, Monisha, Tushar Kant, Sanyukta Patel, Rama Devi, Anuradha Sharma, Shashi Gupta	Paper-based mercury ion detector	436634-001 (Design Patent)	06/11/2024	09/01/2025	Granted
3	Kamlesh Shrivas, Tushar Kant Rama Devi, Sanyukta Patel, Tikeshwari, Sushama Sahu Indrajit Mahto, Anuradha Sharma	Paper-based electrochemical device for glucose detection in blood serum	445650-001 (Design Patent)	27/01/2025	24/03/2025	Granted
4	Kamlesh Shrivas, Archana Patley, Anuradha Sharma, Kiran Thakur, Shashi Gupta, Santosh Singh Thakur, Kallol K. Ghosh, Manas Kanti Deb	Paper-based electrochemical sensor for H_2O_2 detection	453147-001 (Design Patent)	27/03/2025	-	-
5	Kamlesh Shrivas, Pranjal Pradhan, Khushali Tandey, Anuradha Sharma, Shashi Gupta, Neetu Harmukh	A system and method for detection of sulfate ions in environmental samples	202521012673 A (Utility Patent)	14/02/2025	28/02/2025	-
6	Kamlesh Shrivas, Arun Kumar Patel, Kavita Thakur and Manas Kanti Deb	Smart-nano colorimeter for onsite detection of iron, dyes and urea in food, environmental clinical samples	202521037896 (Utility Patent)	24/04/2025	09/05/2025	-

ORIGINAL
क्रम सं/ Serial No. : 189354

INTELLECTUAL PROPERTY INDIA

पेटेंट कार्यालय, भारत सरकार **The Patent Office, Government Of India**

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 436493-001

तारीख / Date : 05/11/2024

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *PAPER-BASED COLORIMETRIC DEVICE FOR RIBOFLAVIN DETECTION IN FOODS* से संबंधित है, का पंजीकरण, श्रेणी 24-02 में 1.Dr. Kamlesh Shrivas 2. Ms. Tikeshwari 3.Dr. Sanyukta Patel 4.Dr. Tushar Kant 5.Dr. Santosh Singh Thakur 6.Dr. Kiran Thakur के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-02 in respect of the application of such design to *PAPER-BASED COLORIMETRIC DEVICE FOR RIBOFLAVIN DETECTION IN FOODS* in the name of 1.Dr. Kamlesh Shrivas 2. Ms. Tikeshwari 3.Dr. Sanyukta Patel 4.Dr. Tushar Kant 5.Dr. Santosh Singh Thakur 6.Dr. Kiran Thakur.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 07/01/2025
Date of Issue

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
Controller General of Patents, Designs and Trade Marks

*पारस्परिकता तारीख (यदि कोई हो), जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।
The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

ORIGINAL
क्रम सं/ Serial No. : 189452

INTELLECTUAL PROPERTY INDIA

पेटेंट कार्यालय, भारत सरकार **The Patent Office, Government Of India**

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 436634-001

तारीख / Date : 06/11/2024

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *PAPER-BASED MERCURY ION DETECTOR* से संबंधित है, का पंजीकरण, श्रेणी 24-02 में 1.Dr. Kamlesh Shrivas 2. Dr. Monisha 3.Dr. Tushar Kant 4.Dr. Sanyukta Patel 5.Dr. Rama Devi 6.Mrs. Anuradha Sharma 7.Dr. Shashi Gupta के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-02 in respect of the application of such design to *PAPER-BASED MERCURY ION DETECTOR* in the name of 1.Dr. Kamlesh Shrivas 2. Dr. Monisha 3.Dr. Tushar Kant 4.Dr. Sanyukta Patel 5.Dr. Rama Devi 6.Mrs. Anuradha Sharma 7.Dr. Shashi Gupta.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 09/01/2025
Date of Issue

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
Controller General of Patents, Designs and Trade Marks

*पारस्परिकता तारीख (यदि कोई हो), जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।
The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

ORIGINAL
क्रम सं/ Serial No. : 195122

INTELLECTUAL PROPERTY INDIA

पेटेंट कार्यालय, भारत सरकार **The Patent Office, Government Of India**

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 445650-001

तारीख / Date : 27/01/2025

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *PAPER-BASED ELECTROCHEMICAL DEVICE FOR GLUCOSE DETECTION IN BLOOD SERUM* से संबंधित है, का पंजीकरण, श्रेणी 24-01 में 1.Dr. Kamlesh Shrivas 2. Dr. Tushar Kant 3.Dr. Rama Devi 4.Dr. Sanyukta Patel 5.Ms. Tikeshwari 6.Dr. Sushama Sahu 7.Mr. Indrajit Mahto 8.Mrs. Anuradha Sharma के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-01 in respect of the application of such design to *PAPER-BASED ELECTROCHEMICAL DEVICE FOR GLUCOSE DETECTION IN BLOOD SERUM* in the name of 1.Dr. Kamlesh Shrivas 2. Dr. Tushar Kant 3.Dr. Rama Devi 4.Dr. Sanyukta Patel 5.Ms. Tikeshwari 6.Dr. Sushama Sahu 7.Mr. Indrajit Mahto 8.Mrs. Anuradha Sharma.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 24/01/2025
Date of Issue

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
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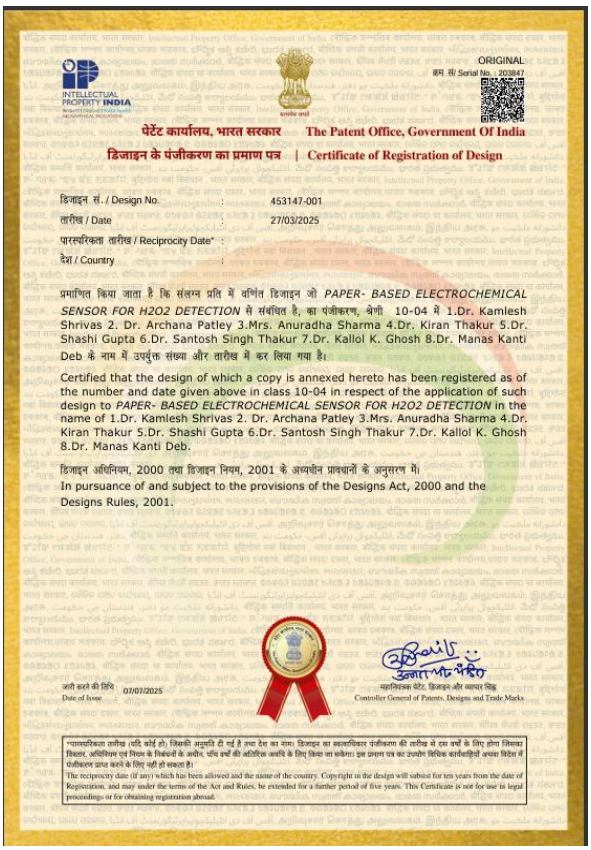
*पारस्परिकता तारीख (यदि कोई हो), जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।
The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.



ORIGINAL
क्रम सं/ Serial No. : 203847

INTELLECTUAL PROPERTY INDIA

पेटेंट कार्यालय, भारत सरकार **The Patent Office, Government Of India**

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 453147-001

तारीख / Date : 27/03/2025

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *PAPER- BASED ELECTROCHEMICAL SENSOR FOR H2O2 DETECTION* से संबंधित है, का पंजीकरण, श्रेणी 10-04 में 1.Dr. Kamlesh Shrivas 2. Dr. Archana Patley 3.Mrs. Anuradha Sharma 4.Dr. Kiran Thakur 5.Dr. Shashi Gupta 6.Dr. Santosh Singh Thakur 7.Dr. Kallol K. Ghosh 8.Dr. Manas Kanti Deb के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 10-04 in respect of the application of such design to *PAPER- BASED ELECTROCHEMICAL SENSOR FOR H2O2 DETECTION* in the name of 1.Dr. Kamlesh Shrivas 2. Dr. Archana Patley 3.Mrs. Anuradha Sharma 4.Dr. Kiran Thakur 5.Dr. Shashi Gupta 6.Dr. Santosh Singh Thakur 7.Dr. Kallol K. Ghosh 8.Dr. Manas Kanti Deb.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 07/07/2025
Date of Issue

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न
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*पारस्परिकता तारीख (यदि कोई हो), जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।
The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

RESEARCH SCHOLARS CURRENTLY WORKING

S.N.	Name of Research Scholar	Name of Research Guide	Category	Type of Fellowship
1.	**Ms. Reena Suryawanshi**	Prof. Kallol K. Ghosh	SC	Pt. Ravishankar Shukla University Scholarship (2020-2022)
2.	**Mr. Abhishek Katendra**	Prof. Kallol K. Ghosh	OBC	Pt. Ravishankar Shukla University Scholarship (2021-2023)
3.	**Ms. Angel Minj**	Prof. Kallol K. Ghosh	ST	Pt. Ravishankar Shukla University Scholarship (2021-2023)
4.	**Ms. Richa Tembekar**	Prof. Kallol K. Ghosh	Gen	Pt. Ravishankar Shukla University Scholarship (2022-2024)
5.	**Dr. Shubhra Sinha**	Prof. Manas Kanti Deb	Gen	DST-PURSE Project Fellowship
6.	**Mr. Suryakant Manikpuri**	Prof. Manas Kanti Deb	OBC	DST-PURSE Project Fellowship
7.	**Ms. Babita**	Prof. Manas Kanti Deb	SC	CSIR- Junior Research Fellowship
8.	**Mr. Vikash Patel**	Prof. Manas Kanti Deb	OBC	
9.	**Ms. Khushi Ganjir**	Prof. Manas Kanti Deb	UR	
10.	**Dr. Aishwaryashri Tamrakar**	Prof. Shamsh Pervez	OBC	DST-PURSE Project Fellowship
11.	**Ms. Dharini Sahu**	Prof. Shamsh Pervez	OBC	SERB Project Fellowship
12.	**Mr. Pradeep Sahu**	Prof. Manish K. Rai	OBC	Pt. Ravishankar Shukla University Scholarship (2021-2023)
13.	**Ms. Omakshi Bhonde**	Prof. Manish K. Rai	Gen	
14.	**Ms. Yogeeta Tiwari**	Prof. Manish K. Rai	Gen	
15.	**Ms. Tikeshwari**	Prof. Kamlesh K. Shrivas	ST	
16.	**Ms. Khushali Tandey**	Prof. Kamlesh K. Shrivas	SC	Pt. Ravishankar Shukla University Scholarship (2022-2024)

17.	**Mrs. Ankita Tejwani**	Prof. Kamlesh K. Shrivas	Gen	Pt. Ravishankar Shukla University Scholarship (2022-2024)
18.	**Mr. Harsh Kumar**	Prof. Kamlesh K. Shrivas	OBC	
19.	**Mrs. Rajani Mandal**	Prof. Kamlesh K. Shrivas	Gen	
20.	**Ms. Yogyata Chawre**	Dr Manmohan Lal Satnami	Gen	INSPIRE Fellowship
21.	**Ms. Ankita Beena Kujur**	Dr Manmohan Lal Satnami	ST	CSIR- Junior Research Fellowship
22.	**Mr. Prince Kumar Soni**	Dr Manmohan Lal Satnami	OBC	
23.	**Mr. Rajiv Nayan**	Dr. Indrapal Karbhal	OBC	DST-PURSE Project Fellowship
24.	**Mr. Vaibhav Dixit**	Dr. Indrapal Karbhal	Gen	INSPIRE Fellowship
25.	**Ms. Nikita Raghuvanshi**	Dr. Bhanushree Gupta*****	Gen	
26.	**Ms. Pritimala Sahu**	Dr. Bhanushree Gupta	OBC	INSPIRE Fellowship
27.	**Ms. Ujjwala Patel**	Dr. Bhanushree Gupta	Gen	CSIR- Junior Research Fellowship
28.	**Ms. Pomesh Sahu**	Dr. Bhanushree Gupta	Gen	

*****Center for Basic Sciences

DOCTORAL DEGREE AWARDED

2019-2024

S. N.	Name of the Student	Supervisor	Year of award
1.	**Dr. Yamini Thakur**	Prof. Rama Pande	2019
2.	**Dr. Shahina Bano**	Prof. Shamsh Pervez	2019
3.	**Dr. Jyoti Korram**	Dr. Manmohan L. Satnami	2019
4.	**Dr. Ram Singh Kurrey**	Prof. Manas Kanti Deb	2019
5.	**Dr. Nisha Chhetri**	Prof. S. A. Bhoite	2019
6.	**Dr. Kalpana Wani**	Prof. Manish K. Rai	2019
7.	**Dr. Manoj Kumar Banjare**	Prof. Kallol K. Ghosh	2019
8.	**Dr. Madhuri Verma**	Prof. Shamsh Pervez	2019
9.	**Dr. Rakesh Kumar Sahu**	Prof. Shamsh Pervez	2019
10.	**Dr. Rainy Agrawal**	Prof. Rama Pande	2019
11.	**Dr. Reshma**	Prof. Kallol K. Ghosh	2019
12.	**Dr. Swapnil Tiwari**	Prof. Manas Kanti Deb	2020
13.	**Dr. Prashant Mundeja**	Prof. Manish K. Rai	2020
14.	**Dr. Yaman Kumar Sahu**	Prof. K. S. Patel	2021
15.	**Dr. Srishti Sharma**	Prof. Kallol K. Ghosh	2021
16.	**Dr. Mithlesh Mahilang**	Prof. Manas Kanti Deb	2021
17.	**Dr. Beeta Rani Khalkho**	Prof. Manas Kanti Deb	2022
18.	**Dr. Tusharkant Kant Sahu**	Prof. Kamlesh K. Shrivas	2022
19.	**Dr. Deepak Kumar Sahu**	Prof. Manish K. Rai	2022
20.	**Dr. Lakshita Dewangan**	Dr. Manmohan. L. Satnami	2022
21.	**Dr. Tarun Patle**	Prof. Kamlesh K. Shrivas	2022
22.	**Dr. Shubhashree Jayesh Pandya**	Prof. Kallol K. Ghosh	2022

23.	**Dr. Sushama Sahu**	Prof. Kallol K. Ghosh	2022
24.	**Dr. Princy Dugga**	Prof. Shamsh Pervez	2022
25.	**Dr. Annushree Saha**	Prof. Manas Kanti Deb	2022
26.	**Dr. Bhuneshwari Sahu**	Prof. Manas Kanti Deb	2022
27.	**Dr. Monisha Sahu**	Prof. Kamlesh K. Shrivas	2023
28.	**Dr. Shubhashree Jayesh Pandya**	Prof. Kallol K. Ghosh	2023
29.	**Dr. Archi Mishra**	Prof. Shamsh Pervez	2023
30.	**Dr. Jyoti Goswami**	Prof. Manish K. Rai	2023
31.	**Dr. Chhaya Bhatt**	Prof. Manish K. Rai	2023
32.	**Dr. Lavkesh Kumar Singh Tanwar**	Prof. Kallol K. Ghosh	2023
33.	**Dr. Sushanta Ranjan Verma**	Prof. Shamsh Pervez	2024
34.	**Dr. Shashibala Kindo**	Prof. Manish K. Rai	2024
	2025		
35.	**Dr. Shubhra Sinha**	Prof. Manas K. Deb	2025
36.	**Dr. Aishwaryashri Tamrakar**	Prof. Shamsh Pervez	2025

MoU FOR SCIENTIFIC RESEARCH AND ACADEMIC ACTIVITIES

S. N.	Name of Institutions with which MoU done	Tenure (Starting – Ending date) of the MoU	Objectives/ Nature of MoU	Outcomes of MoU, if any	Contact details of Dealing Person/ Execution Officer
1.	**Indian Institute of Technology, Bhilai**	**2018- 2023**	**Academic Work Research Collaboration**	Used facilities (FESEM & XRD) of IIT, Organized Lectures of Scientists of IIT.	**Prof. Kallol K Ghosh**
2.	**CSIR-Indian Institute of Chemical Technology, Hyderabad**	**2020-2025**	**Research Collaboration Medicinal Plants Extractions NCNR Related Work**	Preliminary work has been initiated Visit of CSIR-IICT Scientists Identification of Plants	**Prof. M.K. Deb Prof. K. K. Sahu Dr. Deependra Singh**
3.	**National Institute of Hydrology, Roorki**	**2019- 2024**	**Collaborative Research Work**	Ambient air monitoring in the Himalayan Glacier regions using established sites of NIH in glacier regions under the SERB sponsored project. PI is Prof. Shamsh Pervez.	**Prof. Shamsh Pervez**
4.	**Indian Institute of Tropical Meteorology, Pune /New Delhi**	**2019-2024**	**Collaborative Research Work on Environmental Chemistry**	a) nder the establishment of Lightning Location Network (LLN) program of IITM, PRSU is hosting one LLN sensor (Earth Network, USA; frequency range 1 khz to 12 MHz), provided by IITM Pune, at the SoS in Chemistry since July 2019. b) ollaborative research with IITM on air quality monitoring and analysis and more than 10 joint research publications in SCI peer reviewed journals.	**Prof. Shamsh Pervez**

5.	**Chhattisgarh Council of Science and Technolgy, Raipur**	**2019- 2024**	**Collaborative Research Use of Advanced Equipment Joint Academic Program**	Publication of Research Papers Conduction of Chhattisgarh Young Scientist Congress.	**Prof. Manish Rai**
6.	**Desert Research Institute, Reno, NV, USA**	**2011-Onwards**	**Collaborative Research on Air Quality monitoring and climate change And Use of advanced instruments**	More than 10 research papers published in SCI Journals and visits of faculties between the participating institutes.	**Prof Shamsh Pervez**
7.	**School of Engineering and Applied Sciences, Washington University, St Louis. MO, USA**	**2016 - onwards**	**Collaborative Research on Air Quality monitoring and climate change And Use of Advanced instruments**	More than 12 research papers published in SCI Journals and visits of faculties between the participating institutes.	**Prof Shamsh Pervez**
8.	**School of Studies in Electronics and Photonics**	**2024-2029**		One Student from Electronic is working in DST PURSE Project	**Prof. Kallol K. Ghosh**

INFORMATIVE COLLABORATIONS FOR SCIENTIFIC RESEARCH AND ACADEMIC ACTIVITIES

- **Desert Research Institute, U.S.A.**
- **Department of Chemistry and Biotechnology, Tallinn University of Technology (TalTech), Tallinn, Estonia**
- **University Hospital Biomedical Research Centre, Sokolska, Hardec Kralove**
- **Department of Environmental Engineering & Science, Chia Nan University, Taiwan**
- **Cancer Research Laboratory in Radiation, Biology and Health Division, Bhabha Atomic Research Centre, Trombay, Mumbai for in-vitro and in-vivo studies**
- **Institute of science, Nagpur for Software Drug Designing**
- **Central Drug Research Institute Lucknow**
- **National Metallurgical Laboratory, Jamshedpur**
- **National Environmental and Engineering Research Institute, Nagpur**

STUDENTS ACHIVEMENT

LIST OF STUDENTS QUALIFIED CSIR-NET/GATE/SET AND INSPIRE

S.No.	Name	Qualified Exam	Year
(2019-2020)			
1.	**Madhu**	SET	2019-2020
2.	**Sanjay Yadav**	NET	2019-2020
3.	**Beena Sahare**	NET	2019-2020
4.	**Tikeshwari**	NET	2019-2020
5.	**Devyani Dahare**	NET	2019-2020
6.	**Mohnish Kumar**	SET	2019-2020
7.	**Reena Suryawanshi**	SET	2019-2020
8.	**Shailesh Singh**	SET	2019-2020
9.	**Kundan Singh Wasnik**	NET	2019-2020
10.	**Ankita Beena Kujur**	NET	2019-2020
11.	**Umasharan Sahu**	NET	2019-2020
12.	**Devendra Parganiha**	NET	2019-2020
13.	**Bhagwat Ram**	NET, GATE	2019-2020
14.	**Namrata Tamboli**	SET	2019-2020
15.	**Dev Singh**	SET	2019-2020
16.	**Yogyata Chawre**	INSPIRE	2019-2020
17.	**Preeti Kispotta**	SET	2019-2020
(2020-2021)			
18.	**Subhash Kumar**	GATE	2020-2021
19.	**Mohar Singh**	GATE	2020-2021
20.	**Sunita Saha**	NET, GATE	2020-2021

(2021-2022)			
21.	**Uttam Sarkar**	NET, GATE	2021-2022
22.	**Lokeshwar Dadsena**	NET, GATE	2021-2022
(2022-2023)			
23.	**Vaibhav Dixit**	INSPIRE	2022-2023
24.	**Khushali Tandey**	GATE	2022-2023
25.	**Rajeev Nayan**	GATE	2022-2023
26.	**Devendra Patel**	GATE	2022-2023
27.	**Ashish Kumar Verma**	GATE	2022-2023
28.	**Pragya Dohre**	GATE	2022-2023
29.	**Yugal Rathod**	GATE, NET	2022-2023
30.	**Mahendra Kumar**	Joint-UGC NET	2022-2023
31.	**Sukdev**	GATE	2022-2023
32.	**Pritimala Sahu**	INSPIRE	2022-2023
(2023-2024)			
33.	**Ujjwala Patel**	CSIR-UGC JRF, GATE	2023-2024
34.	**Ankita Tejwani**	SET (M.P.)	2023-2024
35.	**Babita**	CSIR UGC-NET	2023-2024
36.	**Suryakant Manikpuri**	GATE	2023-2024
37.	**Subhash**	CSIR-UGC NET JRF	2023-2024
38.	**Diksha Pandey**	Joint-CSIR UGC NET	2023-2024
39.	**Pragya**	Joint-CSIR UGC NET	2023-2024
40.	**Sangeeta Patel**	CSIR UGC NET, JRF	2023-2024

(2024-2025)

41.	**Amit Pradhan**	Joint-CSIR UGC NET, JRF	2024-2025
42.	**Devendra Patel**	Joint-CSIR UGC NET, JRF, SET	2024-2025
43.	**Tipanshu Sahu**	Joint-CSIR UGC NET, JRF, GATE	2024-2025
44.	**Amirchand**	Joint-CSIR UGC NET, JRF, SET	2024-2025
45.	**Khusahli Tandey**	Joint-CSIR UGC NET, SET	2024-2025
46.	**Sukhdev Dewangan**	Joint-CSIR UGC NET,	2024-2025
47.	**Kuldeep**	GATE	2024-2025
48.	**Khushi Ganjir**	SET	2024-2025
49.	**Prince Kumar Soni**	SET	2024-2025
50.	**Suryakant Manikpuri**	SET	2024-2025
51.	**Ujjawala Patel**	SET	2024-2025
52.	**Nikita Raghuvanshi**	SET	2024-2025
53.	**Jhamendra Deshmukh**	SET	2024-2025

OUR 33 STUDENTS SELECTED IN CGPSC-2021: ASSISTANT PROFESSOR

					
Vinayak	**Shippi Dewangan**	**Vibha Satpathi**	**Bhagwat Ram**	**Vandana Mishra**	**Ameet Sahu**
					
Tushar Kant	**Swati Chandrawanshi**	**Bhola Ram**	**Bhupendra Singh**	**Nitesh Thakur**	**Yamini Thakur**
					
Dev Singh	**Beeta Rani Khalkho**	**Rakesh K. Sidar**	**Tikeshwari**	**Sonali Loya**	**Varsha Chandrakar**
					
Mithilesh K. Gupta	**Vandana Yadaw**	**Harvindar Singh Kurre**	**Tula Ram**	**Neelam**	**Khilawan Patel**
					
Mukesh Patel	**Princy Dugga**	**Preeti Kispotta**	**Meenaxi Bhagat**	**Madhu**	**Sumar R Tirkey**
					
Kaushilya Mannewar	**Santosh Kumar Dahariya**	**Shailendra Singh**			
					
			Dr. Lavkesh and Dr. Jyotsana, Scientific Officer, State Forensic Science Laboratory, Raipur		

INSTRUMENTAL FACILITY AVAILABLE IN DEPARTMENT

DST PURSE LAB

Scanning Electron Microscope (SEM) with EDX

Multiwavelength Thermal/ Optical Carbon/ Organic Carbon/ Elemental Carbon Analyzer

FTIR/ Imaging Spectrometer

BET Surface Area Analyzer

Steady State Fluorescence Spectrophotometer

Electrospinning Machine

Fabrication of Experimental Setup High pressure fixed bed micro reactor with additional setup

02 Port SPGloveBox

Battery Analyzer 16-Channel, 5 Amps, 5 Volts

Potentiostat

Tube Furnace

3D Printer and Screen Printer

DST-FIST/ UGC SAP LAB

Automatic Surface Tensiometer

Ion-Chromatography

TD GC-MS/MS

HPLC

UV-Visible Spectroscopy

CHNS/O Analyser

AWARDS RECEIVED IN VARIOUS COFERENCES

S.N	Title	Organization	Name	Award	Year
1.	Development of Nano-biosensor for the Study of Inhibition Efficiency of Novel Drugs for the Treatment of the Alzheimer Diseases,	8th ANVESHAN National Student Research Convention, Kalinga University, Raipur, 28-29th January, 2019	**Srishti Sharma**	3rd Rank (Oral Presentation)	2019
2.	Determination of Vitamin B1 by using Cys-modified AgNPs in Food and Water Samples	56th Annual Convention of Chemists 2019 & International Conference on Recent Trends in Chemical Sciences (Indian Chemical society) School of studies in Chemistry, Pt. RSU, Raipur November 14-16, 2019	**Bhuneshwari Sahu**	(Professor G. Gopalarao Centenary Young Scientist Award)	2019
3.	Adsorption effectiveness of gold nanoparticles immobilized resin nanocomposite materials towards removal of methylene blue dye from water sample.	56th Annual Convention of Chemist, Indian Chemical Society (ICS) & International Conferences on Recent Trends in Chemical Sciences, Pt. RSU, Raipur (C.G.)	**Anushree Saha**	Dr. U. V. Rao Memorial Award (Young Scientist Award)	2019
4.	FRET-Based Switching of Blue Luminescencent Carbon Quantum Dot for the Sensing of Organophosphorus and Carbamate Pesticides: Gold Nanoprobe for Inhibition and Reactivation of AChE	International Conference on Luminescence and Its Application School of Studies in Physics, Pt. Ravishankar Shukla University, Raipur, 2019	**Jyoti Korram**	3rd Prize Awarded Poster Presentation	2019
5.	New Insights into Interactions between Anti-Alzheimer's drugs and Functionalized Ionic Liquid,	International Seminar on Recent Advances in Chemistry & Material Sciences, Indian Chemical Society, Kolkata, West Bengal, 2-3,8, 15, 22 & 29th August,	**Srishti Sharma**	S.S Bhatnagar Young Scientist Award,	2020
6.	Aggregation Behaviour of Cationic and Anionic Surfactant in presence of Imidazolium Based Ionic Liquid	International Seminar on Recent Advances in Chemistry & Material Sciences, Indian Chemical Society, Kolkata, West Bengal, 2-3,8, 15, 22 & 29th August, 2020	**Lavkesh Kumar Singh Tanwar**	S.S Bhatnagar YoungScientist Award, ,	2020
7.	Facile Synthesis of Boron Doped Graphene Quantum Dots by Bottom-Up Method,	International Conference on Materials for Environment, Department of Chemistry, Govt. V.Y.T. PG Autonomous	**Reena Suryavanshi,**	Best Poster Presentation	2020

		College, Durg (CG), India, 24-25th January.			
8.	"Colorimetric and paper-based sensor for selective detection of lead using PVA functionalised silver nanoparticles: Experimental and theoretical approach"	Indian Chemical Society (International Conference on Recent Trends in Chemistry)	**Bhuneshwari Sahu**	Research Excellence Award	2020
9.	Synthesis and Characterization of Gold- Nanoparticle/ Carbon Quantum Dots Composite	58th Annual Convention of Chemists, 2021 & International Conference, Indian Chemical Society, Kolkata during December 21 – 24, 2021.	**Abhishek Katendra**	Indian Chemical Society Research Excellence Award	2021
10.	Source apportionment and potential health risk assessment of selected trace and toxic elements in groundwater of Bastar division, India	UGC-SAP (DRS-II) International webinar on advances in environmental and chemical sciences, SoS in Chemistry, Pt. Ravishankar Shukla University, Raipur	**Princy Dugga**	1st prize in Oral Presentation	2021
11.	Food safety monitoring of the pesticide phenthoate using a smart phone assisted paper-based sensor with bimetallic Cu@Ag core shell nanoparticles	Virtual international conference on chemical science in sustainable technology and Development, surat (IC^2S^2TD-2020)	**Monisha**	Young scientist award 2021	2021
12.	N-doped Carbon Quantum Dots MnO2 Nanowire FRET Pairs: Detection of Cholesterol, Glutathione, Acetylcholine esterase and Chloropyrifos	58th Annual Convention of Chemists 2021, International Conference on Recent Trends in Chemical Sciences, Organized by Indian Chemical Society, Kolkata, 21-24th December 2021	**Lakshita Dewangan**	Prof. V. R. Pandu Ranga Rao Award	2021
13.	Physicochemical and Spectroscopic Studies on Inclusion Complexation of Tri Cyclic Antidepressant Drugs with α-Cyclodextrin and β-Cyclodextrin	1st International Conference on Functional Materials (ICFM-2022),24-26th August 2022	**Lavkesh Kumar Singh Tanwar**	2nd Prize Oral Presentation	2022
14.	Interaction of Dopamine with Citrate Mediated Self-Assembled Au/Ag Bimetallic Nanoparticles	National Conference on Advances in Chemical and Environmental Sciences, School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur CG), India, 09-10th December, 2022	**Angel Minj**	3rd Prize in Poster Competition	2022

15.	N, S co-doped Graphene: An Efficient Material for MB Adsorption"	Poster Competition, School of Studies in Chemistry, Pt. Ravishankar Shukla University	**Shubhra Sinha**	2nd Prize in Poster Competition	2022
16.	Multicolor Emissive N-doped Carbon Quantum Dots for FRET dissection of Gold Nanorods.	59th Annual Convention of Chemists 2022, International Conference on Recent Trends in Chemical Sciences organized by Indian Chemical Society and Indian Institute of Technology Dhanbad, 16-18th December 2022	**Yogyata Chawre**	Prof. K. R. Desai Award (Young Scientist Award) for Oral Competition	2022
17.	Boron Carbon Nitride Coated Conducting Carbon Cloth for High-performance Flexible Supercapacitor	National Conference on Advances in Chemical and Environmental Sciences, School of Studies in Chemistry, 09-10th December, 2022	**Vaibhav Dixit**	1st Prize Poster Presentation	2022
18.	Gold- Nanoparticle/ Carbon Quantum Dots Composites: Synthesis, Characterization and Applications	NATIONAL SCIENCE DAY 2023, Poster Competition, PRSU, Raipur, March 31st , 2023	**Abhishek Katendra**	2nd Prize in Poster Competition	2023
19.	Inclusion complexation of antidepressant drugs with α-cyclodextrin and β-cyclodextrin	18th Chhattisgarh Young Scientist Congress (CYSC-2023), Pt. Ravishankar Shukla University Raipur (CG), India, 3-4th May 2023.	**Lavkesh Kumar Singh Tanwar**	Young Scientist Award in Chemical Sciences	2023
20.	"Study of Ambient PM_1 in the Urban Environment of Chhattisgarh"	National Conference on Environment and Sustainable Development, School of Studies in Environmental Sciences, Pt. RSU, Raipur	**Suryakant Manikpuri**	2nd Prize in Poster Competition	2023
21.	"The Astonishing Antimicrobial Activity of Silver Nanoparticles Grafted N, S co-doped Graphene"	NATIONAL SCIENCE DAY 2023, Poster Competition, PRSU, Raipur, March 31st , 2023	**Shubhra Sinha**	1st Prize in Poster Competition,	2023
22.	A Novel Mass Transfer Model For Detection Of Pymetrozine Insecticide By Organic Hydrophobic Resin Bound Gold Nanocomposites Employing In-Situ Se/Atr-Ftir Spectroscopy	18th Chhattisgarh Young Scientist Congress (CYSC-2023), Pt. Ravishankar Shukla University Raipur (CG), India, 3-4th May 2023.	**Anushree Saha**	Young Scientist Award in Chemical Engineering	2023
23.	Characteristics of ambient volatile organic compounds and their role in ozone formation potential in urban-	18th Chhattisgarh Young Scientist Congress (CYSC-2023), Pt. Ravishankar Shukla University Raipur (CG), India, 3-4th May 2023.	**Aishwaryashri Tamrakar**	Young Scientist Award in environmental sciences,	2023

	industrial environment of chhattisgarh			engineering and forestry	
24.	Flotation - Dissolution method for determination of chlorpyrifos	National Conference on Environment and Sustainable Development, School of Studies in Environmental Sciences, Pt. RSU, Raipur	**Pradeep Sahu**	3rd Prize in Poster Competition	2023
25.	Fourier transform infrared - spectrophotometric technique for analysis of some oncogenic pesticides in agricultural samples of chhattisgarh state	18th Chhattisgarh Young Scientist Congress (CYSC-2023), Pt. Ravishankar Shukla University Raipur (CG), India, 3-4th May 2023.	**Chhaya Bhatt**	Young Scientist Award in Agricultural Engineering/Technology	2023
26.	Application of silver nanoparticles as sensing probe for colorimetric and paper based detection of riboflavin	NATIONAL SCIENCE DAY 2023, Poster Competition, PRSU, Raipur, March 31st , 2023	**Tikeshwari**	2nd Prize Awarded Poster Presentation	2023
27.	N-Doped Carbon Quantum Dot-MnO2 Nanowire FRET-based fluorescence probe for detection of cholesterol	NATIONAL SCIENCE DAY 2023, Poster Competition, PRSU, Raipur, March 31st , 2023	**Ankita Beena Kujur**	3rd Prize Awarded Poster Presentation	2023
28.	Atomic Engineering Design of Boron and Nitrogen Co-Doped Carbon Fiber: A Potent Material for Methylene Blue Removal	18th Chhattisgarh Young Scientist Congress (CYSC-2023), Pt. Ravishankar Shukla University Raipur (CG), India, 3-4th May 2023	**Rajiv Nayan**	Young Scientist Award in Mechanical, Mechatronics and Production Engineering	2023
29.	For the achievement in the field of Academics	Women Scientist Round Table Conference on Women for Scientific Social Responsibility (WSSR 2024) organized by Centre for Women's Studies, Pt. Ravishankar Shukla University, Raipur,	**Yogyata Chawre**		2023
30.	For the achievement in the field of Academics	National Conference on Surfactants Emulsions and Biocolliods, (November 23-25)2023	**Yogyata Chawre**	Professor Sukumar Aditya Memorial Award	2023
31.	Boron Carbon Nitride Coated Conducting Carbon Cloth for High Performance Flexible Supercapacitor	National Conference on Advances in Chemical & Environmental Sciences, PRSU Raipur	**Vaibhav Dixit**	First Prize	2023

32.		National Science Day, 28th February, 2024	**Yogyata Chawre**	First Price in Poster	2024
33.	Synergism of Silver Nanoparticles decorated Nitrogen, Sulphur co-doped Graphene as Chemical Toxicants against S. aureus and E. coli,	National Science Day 2024 organized by School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, Chhattisgarh	**Shubhra Sinha**	"First Prize" in Poster Competition	2024
34.	For the achievement in the field of Academics	Women Scientist Round Table Conference on Women for Scientific Social Responsibility (WSSR 2024) organized by Centre for Women's Studies, Pt. Ravishankar Shukla University, Raipur,	**Shubhra Sinha**	Women Scientist Achiever Award	2024
35.	N-Doped Carbon Quantum Dot-MnO2 Nanowire FRET-based fluorescence probe for detection of cholesterol	Natioanl Conference On Emerging Smart Materials In Chemical Sciences (Esmcs-2024), Ggu, Bilaspur	**Ankita beena Kujur**	Best Oral Talk	2024
36.	Triple-Mode Sensing of Hg2+ Using FRET Pair of Nitrogen-Doped Carbon Quantum Dots and Gold Nanorods	31st International Conference of International Academy of Physical Sciences (CONIAPS XXXI) On Emerging Trends in Physical Sciences	**Ankita beena Kujur**	Young Scientist Award	2024
37.	BCN Coated Conducting Carbon Cloth for High-performance Flexible Supercapacitor	International Conference on Futuristic Science and Technology, Vikram University, Ujjain	**Vaibhav Dixit**	First Prize	2024
38.	Study on the Assembly Structure Variation of CTAB, Monolayer to Bilayer on the Surface of Silver Nanoparticles	One Day National Conference on "Molecules to Material: Unveiling the Chemical Landscape", PRSU, Raipur, 22 February, 2025	**Angel Minj**	3rd Prize in Poster Presentation	2025
39.	Magnetic Nanoparticles for Environmental Remediation: A study on Methylene Blue Dye Removal	International Conference on Recent Advances in Chemical Sciences and Enviroment, Govt. Rajeev Gandhi P. G. College, Ambikapur, 4-5 April, 2025	**Richa Tembekar**	Best Poster Presentation Award	2025

40.	A Comprehensive Review of FTIR Imaging Spectroscopy for Microplastic Detection in Environmental Samples	National Conference on "Molecules to Material: Unveiling the Chemical Landscape" organized by School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur,	**Babita**	Second Prize in Poster Competition	2025
41.	Nanocomposite of GO/SiO2 with PANI for Electrochemical Sensing of Dopamine	International conference on Material Science for Sustainable Development (ICMSSD-2025)	**Ankita Tejwani**	Third Prize in Oral Competition	2025
42.	For the achievement in the field of Academics	International Women's Day Celebration 2025, Centre For Women's Studies, Prsu	**Ankita beena Kujur**	Women Achiever Award	2025
43.	N-Doped Carbon Quantum Dot-MnO2 Nanowire FRET-based fluorescence probe for detection of cholesterol	One Day National Semnar On Molecules To Material: Unveiling The Chemical Landscape, Sos In Chemistry, Prsu	**Ankita beena Kujur**	Consolation Prize, Poster Competition	2025
44.	Triple-Mode Sensing of Hg2+ Using FRET Pair of Nitrogen-Doped Carbon Quantum Dots and Gold Nanorods	International Conference On Recent Advances In Chemical Sciences And Environment, Rajeev Gandhi Govt Pg College, Ambikapur	**Ankita beena Kujur**	Best Paper Presentation	2025
45.	High-Performance Flexible Supercapacitors Based on Boron Carbon Nitride-Coated Conducting Carbon Cloth	National Conference on Molecules to Material, PRSU Raipur	**Vaibhav Dixit**	Second Prize	2025

GOLD MEDALIST IN CHEMISTRY

S. N.	Photo	Name of the Student	Year
1.		Ku. Yogyta Chawre	2019
2.		Mr. Amirchand	2020
3.		Mr. Vaibhav Dixit	2021
4.		Mr. Amit Pradhan	2022
5.		Ms. Durgesh Nandini	2023
6.		Mr. Kuldeep	2024

UGC REFERESHER COURSE/ FACULTY INDUCTION PROGRAM UNDER THE AEGIS OF HRDC

S.No.	Name of the Program	Date	Course Co-ordinator
1.	Refresher Course in Chemistry	September 14-26, 2020	Prof. Kallol K. Ghosh
2.	Refresher Course in Environmental Science	October 5-17, 2020	Prof. Manas Kanti Deb
3.	Refresher Course in Chemistry	July 11-23, 2022	Prof. Shamsh Pervez
4.	Faculty Induction Program (GURUDAKSHATA)	July 7-August 4, 2022	Prof. Kallol K. Ghosh
5.	Refresher course in Chemistry	July 24 –August 11, 2023	Prof. Kallol K. Ghosh
6.	Faculty Induction Program (GURUDAKSHATA)	January 31- Febuary 4, 2023	Prof. Manas Kanti Deb
7.	Refresher course in Computational Sciences	September 09-23, 2024	Prof. Kallol K. Ghosh

CHHATTISGARH YOUNG SCIENTIST CONGRESS

1.	17th Chhattisgarh Young Scientist Congress	28th February- 1st March, 2019	Prof. Manas Kanti Deb
2.	18th Chhattisgarh Young Scientist Congress	3rd -4th May 2023	Prof. Manas Kanti Deb

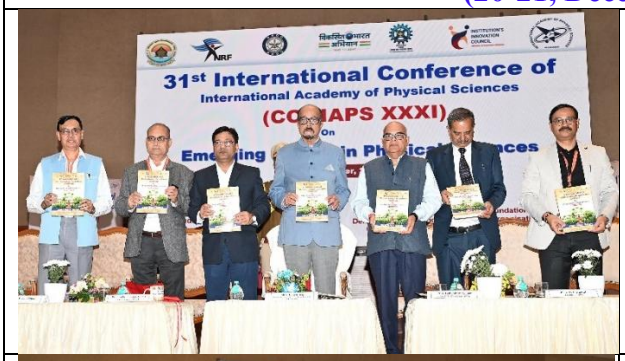
CONFERENCES / SEMINAR/ WEBINAR ORGANIZED

	INTERNATIONAL CONFERENCE	
1.	**56th Annual Convention of Chemist & International Conference on Recent Trends in Chemical Sciences**	**November 14-16, 2019**
2.	**31st International Conference of International Academy of Physical Sciences (CONIAPS XXXI) On Emerging Trends in Physical Sciences**	**December 20-21, 2024**
	NATIONAL CONFERENCE	
3.	**UGC-SAP (DRS-II) 3rd Conference on "Advances in Environmental & Chemical Sciences"**	**March 27-28, 2019**
4.	**National Conference on "Advances in Chemical & Environmental Sciences" Azadi Ka Amrit Mahotsav & Golden Jubilee Year**	**December 9-10, 2022**
5.	**DST Synergistic Training Program Utilizing the Scientific Technological Infrastructure (STUTI) with NIT Warrangal**	**August 22-28, 2022**
6.	**21st National Conference on Surfactants, Emulsions & Biocolloids**	**November 23-25, 2023**
	WEBINAR	
7.	**CRSI Local Chapter National Webinar on "Chemical and Laboratory Safety"**	**November 7, 2020**
8.	**International Webinar on "Advances in Environmental and Chemical Sciences"**	**March 12-13, 2021**
	OTHER ACTIVITIES	
9.	**Poster Competition, Golden Jubilee Year**	**October 22, 2022**
10.	**National Science Day-2022 "**	**March 5, 2022**
11.	**National Science Day-2023 "Global Science for Global Well Being"**	**March 31, 2023**
12.	**National Science Day-2024 " Indigenous Technologies for Viksit Bharat**	**February 28, 2024**
13.	**A Special Seminar on Indian Knowledge System**	**Dec 7, 2024**
14.	**National Conference on Molecules To Materials**	**February 22, 2025**

21st National Conference on Surfactants, Emulsions & Biocolloids (23-25, November 2023)

31st International Conference of International Academy of Physical Sciences (CONIAPS XXXI) On Emerging Trends in Physical Sciences

(20-21, December, 2024)

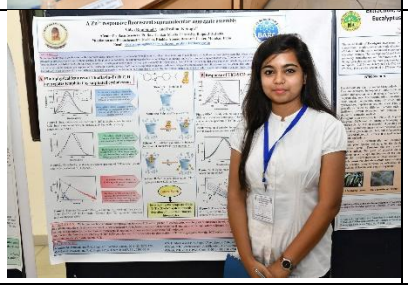


NATIONAL SCIENCE DAY 2023 (31st March 2023)

NATIONAL SCIENCE DAY 2024 (28th March 2024)

NATIONAL SCIENCE DAY 2025 (1st March 2025)

UGC-SAP (DRS-II) 3rd Conference on "Advances in Environmental & Chemical Sciences" (27-28, March 2019)



56th Annual Convention of Chemist & International Conference on Recent Trends in Chemical Sciences (14-16, November, 2021)

Plantation Program (30th July 2024)

Invited Lecture: Prof. R. N. Patel (25th May 2024)

Public Outreach Lecture Dr. Pratishtha Pandey (12th April 2024)

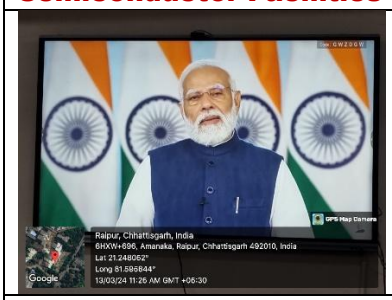
Public Outreach Lecture: Prof. Arun Diwaker Nath Bajpai (15th May 2024)

Invited Lecture Dr. Satyajit Gupta, IIT Bhilai (25th May 2024)

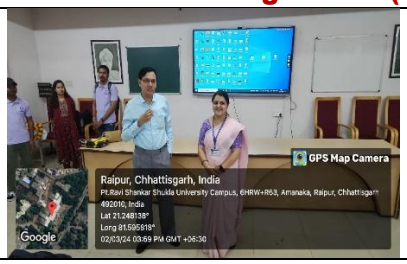
Alumni Talk Dr. Anand kamavisdar (18th April 2024)

Alumni Talks: Mr. Nilesh Kumar Saluja, Mylan Laboratories Limited. (24th January 2024)

Live Streaming of hon'ble PM Narendra Modi's Laying Foundation Stone for 3 Semiconductor Facilities (13th March 2024)



Mental Health Awareness Programme (2nd March 2024)



Voter Awareness Campaign (30th March 2024)

ALUMNI MEET 2022

ALUMNI MEET 2024

ALUMNI MEET 2025

DEVELOPMENT OF E-CONTENT

(1) Prof. Kallol K. Ghosh

S.N.	Title of Video Lecture	Video Lecture Link	Date of Upload
1.	Unimolecular Theory	https://youtu.be/E_5UAMRZ1_M?si=GsQM4GG9HPJor9JW	08/04/2023
2.	Hinshelwood Theory	https://youtu.be/E_5UAMRZ1_M?si=YtQF7ILOUaq4ppDp	10/04/2023
3.	RRKM Theory	https://youtu.be/TlPeXhvo_zU?si=ivaTJIOFA3b9h0D8	13/04/2023
4.	Molecular Reaction Dynamics	https://youtu.be/_XF0WH5NSyU?si=BHC9stUOo_qTC0U3	15/04/2023
5.	Molecular Reaction Dynamics Part-II	https://youtu.be/9u2A3NbkuPU?si=H5FH8UeWazwxAtd_	28/04/2023
6.	Reaction Rate & Rate Laws	https://youtu.be/XZWTDyzqiQg?si=HoD0aiS5aotmBtfc	27/05/2023
7.	Kinetics of Consecutive Reactions	https://youtu.be/kyu8py95mLw?si=NWkVIoEFsanxJCmv	10/06/2023
8.	Steady State Approximation & Reaction Mechanism	https://youtu.be/5frLQ-ptw-M?si=QCzczTT-snnlupq-	13/06/2023
9.	Acidity Function	https://youtu.be/qTz8pqnfmxs?si=1QNRNTghVhrL1iyN	21/06/2023
10.	Acid Base Equilibria Part-I	https://youtu.be/lztNp3Lz218?si=8gRDCLn12OdYGmcC	27/06/2023
11.	Acid Base Equilibria Part II	https://youtu.be/lIrUPT5V3Qs?si=yYBuAk3FDSX0TncM	03/07/2023
12.	Alpha Effect	https://youtu.be/NwBTUWXGy78?si=iEn95STNLAvFg4aH	18/07/2023

13.	Linear Free Energy Relationship & Hammett Equation	https://youtu.be/_5WpnbgIPmU?si=o1PY-7LICcaE5UX1	31/07/2023
14.	Acid Base Catalysis Part-I	https://youtu.be/7QAv2YktQIg?si=LXspCYu3MDzhD4hR	22/08/2023
15.	Reversible First Order Reaction	https://youtu.be/DqAbjOmeha0?si=05pismrgUIl08JKg	24/08/2023
16.	Second Order Reactions	https://youtu.be/2mH41FTDZZk?si=6KQVWaHbJIKe7tNg	26/08/2023
17.	nth Order of Reaction	https://youtu.be/VGiFutBg8VQ?si=7VA5QcHBlJEPhYFR	26/08/2023
18.	Enzyme Catalysis	https://youtu.be/azjyNw6TFS4?si=LcTa_gEgZKmuiCCo	28/08/2023
19.	Second Order Kinetics & Partial Fraction Method	https://youtu.be/5rHMvIloMNA?si=cgv_v0ev4RW5g_5j	02/09/2023
20.	Enzyme Inhibition	https://youtu.be/pZNlS_T7StA?si=o3Ua_5pUec2dA8ks	11/09/2023
21.	Decomposition of N_2O_5	https://youtu.be/WO1etolIAaU?si=3CQWwfj-w0L-ovxi	23/09/2023
22.	Surfactant & Micelles	https://youtu.be/Jj86Rru5yhY?si=YOp0z6KYEVmsxJun	27/09/2023
23.	Classification of Surfactants	https://youtu.be/tjf6vBtLU6U?si=22UPIk0VMym6llEK	27/09/2023
24.	Ionic Strength & Kinetic Salt Effect	https://youtu.be/5zqiomSnbpY?si=VWE4JnNhaYD46N-C	27/09/2023
25.	Theories of Reaction Rate	https://youtu.be/1GWha-jBwNM?si=zs7hX9D-uYx2ECNj	05/10/2023
26.	Critical Micelle Concentration (CMC)	https://youtu.be/voJP5SC1tMM?si=tHMRiZHxwYwnSmf-	09/10/2023
27.	Modified Collision Theory	https://youtu.be/TRkiwI-q_WA?si=XMgkhIeuM1rsJ4Pi	14/10/2023

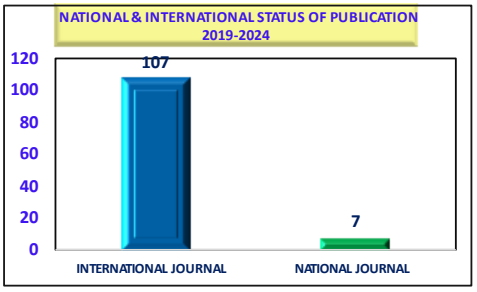
28.	Thermodynamics of Micellization	https://youtu.be/CH2V8XKRoeo?si=8pKomMZ_X8hhKCOr	16/10/2023
29.	Collision Theory	https://youtu.be/jN3p-VGzyfc?si=Llt65KH0rD-W3j_p	31/10/2023
30.	Applications of Activated Complex Theory	https://youtu.be/C-OkB-KCS_Q?si=sS5Xr6akD0_MXzE9	02/11/2023
31.	Transition State Theory	https://youtu.be/51glOPefNaI?si=_5VFR5vdMJyEc4jG	03/11/2023
32.	Kinetics of chain reaction	https://youtu.be/seCxI5rTF_I?si=qQ_HH39qMeJuuv3D	18/11/2023
33.	Oscillatory Reactions	https://youtu.be/CBxlTQQRdWQ?si=FMD8WvXQPjLz-9b7	30/11/2023
34.	Capillary Action & Young Laplace Equation	https://youtu.be/9R4qjpgnhNo?si=HCp-8JJDR8topcc_	15/12/2023
35.	GIBBS ADSORPTION ISOTHERM	https://youtu.be/3Y7nysHWdak?si=HHON2e1OXwVuergw	02/01/2024
36.	Kinetics of Fast Reactions	https://youtu.be/VeBr6OzYVHc?si=97OmK6sS3kbnbqrV	03/02/2024
37.	Kinetics of Flow Methods	https://youtu.be/4EniH7w4vrQ?si=mnAZijecpmlYa6o5	03/02/2024
38.	Stopped Flow Method	https://youtu.be/79v-wQSgjTQ?si=w-FQnJVlI0BlS6LO	09/02/2024
39.	Relaxation Methods	https://youtu.be/cY8alISocpY?si=9cQKEIeXTv7reIQr	15/02/2024
40.	Relaxation Kinetics for Fast Reactions	https://youtu.be/tzAJE5-5Zpg?si=AjV38uT-WB15czjv	15/02/2024
41.	Pressure Jump and Temperature Jump Methods	https://youtu.be/BMLoATiedP4?si=DVbJVURNqvAuP7iu	17/02/2024
42.	Lindemann Theory of Unimolecular Reactions	https://youtu.be/0O0Z4wVT8GE?si=1URaSRAcxHLwvUDQ	02/03/2024
43.	Synthesis of Metallic Nanoparticles	https://youtu.be/QOHlbJQOh7k?si=E_pZb4XeRJt0gqSa	04/03/2024
44.	Synthesis of Semiconductor Nanoparticles	https://youtu.be/sF99rKvl2DU?si=7lWDhio7y3GUNPDe	04/03/2024
45.	Fast Reaction by Nuclear Magnetic Resonance Method	https://youtu.be/mx3YC3-y4HY?si=l3d3mOjinapg3WYM	22/03/2024
46.	Nuclear Magnetic Resonance Method for Studying Chemical Reactions	https://youtu.be/X1O3yrZmMeM?si=R-AmvZdCaDFVb-PN	23/03/2024

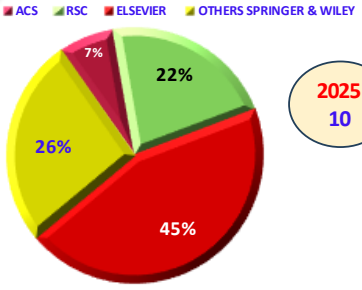
47.	Physical & Chemical Properties of Nanomaterials	https://youtu.be/5w4Tu9Hnyzk?si=syweZxC7szozCLKo	30/03/2024
48.	Melting Points and Mechanical Properties of Nanomaterials	https://youtu.be/WDCbj-0zXpQ?si=RRH44nWBPbhOcySy	03/04/2024
49.	Direct probing of the Transition State	https://youtu.be/u4pMmXrYiL8?si=mWIGYaaCSR8wtoVA	04/04/2024
50.	Some Barrierless Chemical Reactions	https://youtu.be/k8RjVwGCwEY?si=S7_Cy7oD40_e6wVM	13/04/2024
51.	Theories of Barrierless Chemical Reactions	https://youtu.be/Y_06cP7BJVM?si=U0cwrAH2U11ewtMX	13/04/2024
52.	Electrical Properties of Nanomaterials	https://youtu.be/rGdB4ljkYFQ?si=8iQTy9KiSvT37hgq	16/04/2024
53.	Thermodynamic & Kinetic Controlled Reactions	https://youtu.be/V2KnEYi3fGY?si=TKmvh6j0dGoHVVMc	23/04/2024
54.	Tafel Equation & Tafel Plot	https://youtu.be/iCAeNabh73g?si=RSkI45tSh1YEnZTn	04/05/2024
55.	Scanning Tunneling Microscope	https://youtu.be/01-RiFmH6I8?si=NikPp9-O6by2yJMA	06/05/2024
56.	Numerical Problem for Relaxation Kinetics	https://youtu.be/mKX_wrdb2t8?si=xMHuGMitdP5ukQuh	08/05/2024
57.	Rate Law for Sodium Nitrate & Oxygen Reaction	https://youtu.be/d9DEmbJSng0	07/09/2024
58.	An Introduction to Taft Equation	https://youtu.be/MxVDL4T2qtg	17/09/2024
59.	Application of Transition State Theory	https://youtu.be/NUCEjLXwecU	27/09/2024
60.	Bronsted Catalysis Law	https://youtu.be/pfq_pzZ4GRQ	30/09/2024
61.	Reaction between Atoms	https://youtu.be/8uVs9kImgWo	05/10/2024
62.	Hydrophilic Lipophilic Balance (HLB	https://youtu.be/PNZPxHh2Lbs	28/10/2024
63.	Debye Huckel Theory for Electrolyte Solutions Part 1	https://youtu.be/yhnJ7AN1y70	09/11/2024
64.	Debye Huckel Theory for Electrolyte Solutions Part II Derivation	https://youtu.be/7n9gknIWQFs	15/11/2024
65.	The KELVIN EQUATION	https://youtu.be/oV8f5PALIy4	25/11/2024

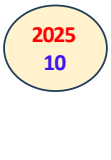
66.	Debye Huckel Limiting law	https://youtu.be/_n8zV4xOR68	27/11/2024
67.	Debye Huckel Onsagar Equation	https://youtu.be/w1nzpaxWlll	05/12/2024
68.	Chemical Kinetics for B.Sc. B.Ed. Students	https://youtu.be/AZGEmhwglT0	19/03/2025
69.	Order of Reaction for B.Sc./ B.Ed. Students	https://youtu.be/bCvv7VFr0Bk?si=nWGZgV6WzC5ORVmu	03/04/2025
70.	Story of Ultrafast Techniques and Femto Chemistry	https://youtu.be/pRec4r6RKjQ?si=0gTHpy7F_7I5u_-t	05/04/2025
71.	Method for Determination of Order of Reaction for B.Sc./B.Ed. Students	https://youtu.be/ciX1yCcSqTA?si=f684bdDEC9nQPjtg	11/04/2025
72.	Temperature Dependence of Rate & Arrhenius Equation For BSc. B.Ed. Students	https://youtu.be/eLiUwlxaNfs?si=h1OxmUdTxpLPxpyR	16/04/2025
73.	Atomic Force Microscopy	https://youtu.be/Fde2f8rdIqo?si=J1biQzQm2xgyuoLl	28/04/2025
74.	Theories of Reaction Rate: Collision theory for B.Sc. B.Ed. Students	https://youtu.be/G1ZF2FNkbKw?si=4zYJ_T7K7iLP92k_	30/04/2025
75.	An Introduction to Scanning Electron Microscope Part 1	https://youtu.be/EqSkXQn2KP4?si=ze7YThjgAWHSrU0K	08/05/2025
76.	An Experiment with Scanning Electron Microscope Part 2	https://youtu.be/D-kUXAVqO_4?si=6OlsoAFdf7ChibwE	08/05/2025
77.	Butler Volmer Equation An Introduction Part 1	https://youtu.be/0CUnDm8pZn8?si=BB8k_WPzLYWx14UR	16/05/2025
78.	Butler Volmer Equation Derivation (Part 2)	https://youtu.be/k_KzNr4_gEs?si=Q3ByZ4Dll6Dk1Vxf	16/05/2025
79.	Applications of Butler Volmer Equation (Part 3)	https://youtu.be/4GgFGe0m_GU?si=qeSuoCidEEfDpiTH	27/05/2025
Prof. Kamlesh K. Shrivas			
1.	Inductively coupled plasma-mass spectrometry	https://youtu.be/nNoZNoQUrM8	6 Mar 2024
2.	HPLC: Part-1	https://youtu.be/yM9p3eE3vbU	5 Mar 2024
3.	HPLC: Part-2	https://youtu.be/kCdnVn8Oz1E	5 Mar 2024
4.	HPLC: Part-3	https://youtu.be/TpTtsugo-Yg	5 Mar 2024
5.	Voltammetry	https://youtu.be/As15uElAQAs	3 Mar 2024

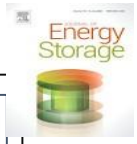
6.	Gas Chromatography	https://youtu.be/1PnAh78bwxQ	2 Mar 2024
7.	Nephelometry & turbidimetry Part 1	https://youtu.be/VY5SDP3qK8k	1 Mar 2024
8.	Nephelometry & Turbidimetry Part 2	https://youtu.be/UvfLlGkwFIw	1 Mar 2024
9.	Microwave spectroscopy Part-1	https://youtu.be/l9eDjCr_0Pw	1 Mar 2024
10.	Microwave spectroscopy Part-2	https://youtu.be/xyOVBswQsQI	1 Mar 2024
11.	Polarography	https://youtu.be/Ag9bU70WVaU	1 Mar 2024
12.	Fluorimetry & Phosphorescnce Part 1	https://youtu.be/hveE61PysSg	18 Feb 2024
13.	Atomic absorption spectroscopy Part 1	https://youtu.be/biG-MDF1JJk	18 Feb 2024
14.	Atomic absorption Spectroscopy Part 2	https://youtu.be/pszxVQqSQAs	18 Feb 2024
15.	Flame photometry & ICP AES Part 1	https://youtu.be/JfBGGa0Ulpk	18 Feb 2024
16.	Flame photometry & ICP AES Part 2	https://youtu.be/PYXI6KDylgI	18 Feb 2024
17.	Coulometry	https://youtu.be/l1sf8xsZH1c	17 Feb 2024
18.	Mass spectrometry	https://www.youtube.com/watch?v=FoTKPlrfey4&t=2765s	19 Feb 2024
19.	x-ray fluorescence spectroscopy	https://studio.youtube.com/video/VF-QF5R882w/edit	22 Feb 2024

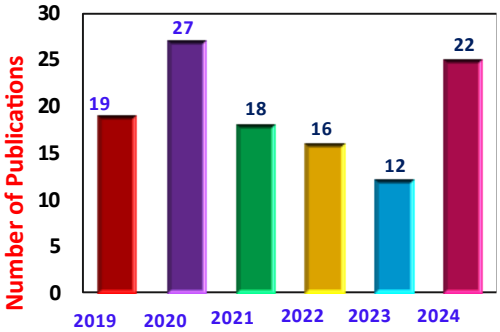
LIST OF PUBLICATIONS (2019-2024)

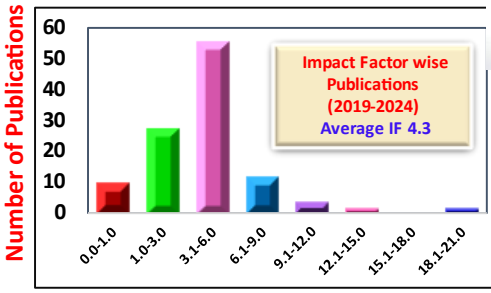












(2019)

S. N.	Author Name	Publication	Title of Research	Journal Impact Factor
1.	Reshma, B. Gupta, R. Sharma, K.K. Ghosh	New J. Chem. **2019**, 43, 9924-9933	Facile and visual detection of acetylcholinesterase inhibitors by carbon quantum dots	RSC (2.7)
2.	M.K. Banjare, K. Behera, Reshma, S. Sharma, R.K. Banjare, S. Pandey, K.K. Ghosh	ACS Sustain. Chem. Eng, **2019,** 7, 11088-11100.	Interaction of ionic liquid with silver nanoparticles: potential application in induced structural changes of globular proteins	ACS (7.9)
3.	Reshma, S. K. Vaishanav, T. Yadav, S. Sinha, S. Tiwari, M.L. Satnami, K.K. Ghosh	Heliyon, **2019,** 5, 301631	Antidepressant drug-protein interactions studied by spectroscopic methods based on fluorescent carbon quantum dots	ELSEVIER (3.4)
4.	R. Kurrey, M.K. Deb, K. Shrivas, B.R Khalkho, J Nirmalkar, D. Sinha, S Jha	Anal. Bioanal. Chem., **2019,** 411 (26), 6943-6957	Citrate-capped gold nanoparticles as a sensing probe for determination of cetyl trimethy lammonium surfactant using FTIR spectroscopy and colorimetry	Springer (3.6)
5.	P.K. Sahu, S. Chakradhari, M.K. Deb, K.S. Patel, E.K. Towett, P. Martín-Ramos	J. Medicinal Plants, **2019**, 1-13	Phenolic and Mineral Characteristics of Seed Coats and Kernels from 24 Species from Raipur Area, India	Science domain International (2.6)

6.	S. Chakradhari, M.K. Deb, K.S. Patel, J. Martín-Gil, E.K. Towett,	J. Medicinal Plants, **2019,** 1-16	Evaluation of the phytochemical and mineral characteristics of some selected Sapotaceae plants	Science domain International (2.6)
7.	S. Tiwari, M.K. Deb	Anal. Methods, **2019,** 11 (28), 3552-3562	Modified silver nanoparticles-enhanced single drop microextraction of tartrazine in food samples coupled with diffuse reflectance Fourier transform infrared spectroscopic analysis	RSC (2.7)
8.	R. Kurrey, M.K. Deb, K. Shrivas	New J. Chem., **2019,** 43 (21), 8109-8121	Surface enhanced infra-red spectroscopy with modified silver nanoparticles (AgNPs) for detection of quaternary ammonium cationic surfactants	RSC (3.2)
9.	R. Kurrey, M. Mahilang, M.K. Deb, K. Shrivas	Tren. Environ. Anal. Chem., **2019,** 21, e00061	Analytical approach on surface active agents in the environment and challenges	Elsevier (11.2)
10.	R. Kurrey, M. Mahilang, M.K. Deb, J. Nirmalkar, K. Shrivas, S. Pervez, M.K. Rai	Food Chem., **2019,** 270, 459-466	A direct DRS-FTIR probe for rapid detection and quantification of fluoroquinolone antibiotics in poultry egg-yolk	Elsevier (9.2)
11.	M. Verma, S. Pervez D. Majumdar, R. Chakrabarty Y. F. Pervez	Int. J. Environ. Sci. Technol., **2019**, *16*, 2683-2692	Emission estimation of aromatic and halogenated VOCs from household solid fuel burning practices	Springer (2.5)
12.	S. Pervez, M. Verma, S. Tiwari, R.K. Chakrabarty, J.G Watson, J.C. Chow, A.S. Panicker, M.K. Deb, Md. N. Siddiqui, Y.F. Pervez	Sci. Total Environ. **2019**, 654, 493-504	Household solid fuel burning emission characterization and activity levels in India	Elsevier (8.2)
13.	K. Shrivas, B. Sahu, M.K. Deb, S.S. Thakur, S.Sahu, R.Kurrey, T. Kant, T.K. Patle, R.Jangde	Microchem. J., **2019**, 150, 104156-104165	Colorimetric and paper-based detection of lead using PVA capped silver nanoparticles: Experimental and theoretical approach	Elsevier (1.2)
14.	K. Shrivas, N. Nirmalkar, M.K. Deb, K. Dewangan, J. Nirmalkar, S. Kumar	Spectrochim. Acta A, **2019**, 213, 127–133	Application of functionalized silver nanoparticles as a biochemical sensor for selective detection of lysozyme protein in milk sample	Elsevier (4.3)
15.	K. Shrivas, S. Sahu, B. Sahu, R. Kurrey, T.K. Patle, T. Kant, I. Karbhal, M.L. Satnami, M.K. Deb, K.K. Ghosh	J. Mol. Liq. **2019**, 275, 297-303	Silver nanoparticles for selective detection of phosphorus pesticide containing π-conjugated pyrimidine nitrogen and sulphur moieties through non-covalent interactions	Elsevier (5.3)
16.	K. Shrivas, A. Ghosale, T. Kant, P. K. Bajpai and R. Shankar	RSC Advance, **2019**, 9, 17868–17876	The direct-writing of low cost paper based flexible electrodes and touch pad devices using silver nanoink and ZnO nanoparticles	RSC (3.0)
17.	P. K. Dewangan, F. Khan, K. Shrivas, V. Sahu	J. Radioanal. Nucl. Chem, **2019**, 320, 757-763	Determination of uranium in environmental sample by nanosensor graphene quantum dots	Springer (1.3)
18.	S. Yadav, K. Shrivas, P. K. Bajpai	J. Alloys Compd. **2019**, 772, 579–592	Role of precursors in controlling the size, shape and morphology in the synthesis of copper sulfide nanoparticles	Elsevier (5.8).

			and their application for fluorescence detection	
19.	J. Korram, L. Dewangan, R. Nagwanshi, I. Karbhal, K.K. Ghosh, M.L. Satnami	New J. Chem. **2019**, 43, 6874-6882.	A carbon quantum dot–gold nanoparticle system as a probe for the inhibition and reactivation of acetylcholinesterase: detection of pesticides	RSC (3.2)
2020				
20.	S. J. Pandya, I. V.Kapitanov, Z. Usmani, R. Sahu, D. Sinha, N. Gathergood, K K. Ghosh, Y. Karpichev	J. Mol. Liq. **2020**, 305, 112857-112868	An example of green surfactant systems based on inherently biodegradable IL-derived amphiphilic oximes	ELSEVIER (5.0)
21.	S. Sharma, M. K. Banjare, N. Singh, J. Korábečný, Z. Fišar, K. Kuča, K. K. Ghosh	J. Mol. Liq. **2020**, 311, 113269-113280	Exploring Spectroscopic Insights into Molecular Recognition of Potential Anti-Alzheimer's Drugs within the Hydrophobic Pockets of β-Cycloamylose	ELSEVIER (5.0)
22.	S. Sahu, S. Sharma, K. K. Ghosh	New J. Chem. **2020**, 44, 15010-15017	Novel Formation of Au/Ag Bimetallic Nanoparticles by a Mixture of Monometallic Nanoparticles and Their Application for Rapid Detection of Lead in Onion Sample	RSC (3.5)
23.	S. Sahu, Reshma, S. Sharma, I. Karbhal and K. K. Ghosh	RSC Adv. **2020**, 10, 31400-31410	Thermodynamic investigation of the interaction between ionic liquid functionalized gold nanoparticles and human serum albumin for selective determination of glutamine	RSC (3.0)
24.	S. Sharma, M. Kumar Banjare, N. Singh, J. Kora´bec˘ny´, K. Kuc˘a and K. K. Ghosh	RSC Adv. **2020**, 10, 38873-38883.	Multi-spectroscopic monitoring of molecular interactions between an amino acid-functionalized ionic liquid and potential anti-Alzheimer's drugs	RSC (3.0)
25.	R. Suryawanshi, M.K. Banjare, K.Behera, R.K. Banjare, R. Sahu, A. Saha, S. Pandey, S. Banerjee and K. K. Ghosh	J. Sol. Chem., **2020,** 49, 715–731.	Interaction of an acid functionalized magnetic ionic liquid with gemini surfactants	Springer (1.2)
26.	S. K. Verma, K. K. Ghosh, R. Verma and S. Verma	Int. J. Chem. Kinet., **2020**, 53, 308-316..	Influence of cationic surfactants and inorganic salts on the enzymatic activity of mucor javanicus lipase	WILEY (1.5)
27.	S. Chandrawanshi, S.K. Verma, M.K. Deb	Indian J. Chem., **2020**, 57 (2), 168-174	Ion-pair single-drop microextraction with ATR-FTIR determination of phosphate in water samples	NIScPR-CSIR (0.5)
28.	A. Saha, M.K. Deb, M. Mahilang, R. Kurrey, S. Sinha	J. Indian Chem. Soc, **2020,** 97 (9b), 1-13	Polymeric resins as nano-catalysts: A brief review	Elsevier (0.2)
29.	A. Sharma, S. Tiwari, M.K. Deb, J.L. Marty	Int. J. Antimicrob. Agents, **2020,** 56 (2), 106054	Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2): a global pandemic and treatment strategies	Elsevier (5.2)

30.	M. Mahilang, M.K. Deb, J. Nirmalkar, S. Pervez	Atmos. Pollut. Res, **2020,** 11 (7), 1127-1141	Influence of fireworks emission on aerosol aging process at lower troposphere and associated health risks in an urban region of eastern central India	Elsevier (3.9)
31.	B.R. Khalkho, R. Kurrey, M.K. Deb, K. Shrivas, S.S. Thakur, S. Pervez, V.K. Jain	Heliyon, **2020,** 6 (2), e03423	L-cysteine modified silver nanoparticles for selective and sensitive colorimetric detection of vitamin B1 in food and water samples	Elsevier (3.4)
32.	R. Kurrey, M.K. Deb, K. Shrivas, J. Nirmalkar, B.K. Sen, M. Mahilang, V.K. Jain	RSC Adv. **2020,** 10 (66), 40428-40441	A KBr-impregnated paper substrate as a sample probe for the enhanced ATR-FTIR signal strength of anionic and non-ionic surfactants in an aqueous medium	RSC (3.0)
33.	M. Mahilang, M.K. Deb	J. Indian Chem. Soc., **2020,** 97, 85-100	Seasonal variation and health implications of long-range transported and provincial size distributed aerosols at eastern central India	Elsevier (0.2)
34.	S. Pervez, R.K. Sahu M. Tripathi, S. Bano, J. L. Matawle, S. Tiwari, M.K. Deb and Y.F. Pervez	Geofizika, **2020**, 37, 1-27	Assessment and evaluation of ambient PM2.5 in relation to its health effects in mineral-based coal-fired industrial areas	Geophysics (1.4)
35.	P. Dugga, S. Pervez, M. Tripathi, Md. N. Siddiqui	Groundw. Sustain. Dev., **2020**, 10, 100356	Spatiotemporal variability and source apportionment of the ionic components of groundwater of a mineral-rich tribal belt in Bastar, India	Elsevier (5.0)
36.	D.K. Sahu, J. Rai, M.K. Rai, M.K. Banjare, M. Nirmal, K. Wani, R. Sahu,	Results Chem., **2020**, 2, 100059	Detection of flonicamid insecticide in vegetable samples by UV–Visible spectrophotometer and FTIR	Elsevier (2.3)
37.	K. Shrivas, Monisha, S. Patel, S.S. Thakur, R. Shankar	Lab Chip, **2020**, 20, 3996-4006	Food safety monitoring of the pesticide phenthoate using a smartphone-assisted paper-based sensor with bimetallic Cu@Ag core–shell nanoparticles	RSC (6.7)
38.	K. Shrivas, A. Ghosale, P.K. Bajpai, T. Kant, K. Dewangan, R. Shankar	Microchem. J., **2020**, 156, 104944-104954	Advances in flexible electronics and electrochemical sensors using conducting nanomaterials: A review	Elsevier (4.9).
39.	T.K. Patle, K. Shrivas, R.Kurrey, S.Upadhyay R. Jangde, R. Chauhan	Spectrochim. Acta A, **2020**, 242, 118717-118726	Phytochemical screening and determination of phenolics and flavonoids in Dilleniapentagyna using UV–vis and FTIR spectroscopy	Elsevier (4.0).
40.	R. Devi, K. Tapadia, T. Kant, A. Ghosale, K. Shrivas, I. Karbhal, T. Maharana	New J. Chem., **2020**, 44, 13446	A low-cost paper-based flexible energy storage device using a conducting polymer nanocomposite	RSC (3.5).
41.	T. Kant, K. Shrivas, V. Ganesan, Y.K. Mahipal, R. Devi, M.K. Deb, R. Shankar,	Microchem. J., **2020**, 155, 104687	Flexible printed paper electrode with silver nano-ink for electrochemical applications	Elsevier (5.1)
42.	K. Shrivas, S. Patel, D. Sinha, S.S. Thakur, T.K. Patle, T. Kant, K. Dewangan, M.L. Satnami, J. Nirmalkar,	Microchim. Acta, **2020**, 187, 173	Colorimetric and smartphone-integrated paper device for on-site determination of arsenic (III) using sucrose modified gold nanoparticles as a nanoprobe	Elsevier (5.3)

	S. Kumar			
43.	K. Shrivas, Monisha, T. Kant, I. Karbhal, R. Kurrey, B. Sahu, D. Sinha, G. K. Patra, M. K. Deb, S. Pervez	Anal. Bioanal. Chem., **2020**, 412, 1573–1583	Smartphone coupled with paper-based chemical sensor for on-site determination of iron(III) in environmental and biological samples	Springer (3.5)
44.	K. Shrivas, W. Naik, D. Kumar, D. Singh, K. Dewangan, T. Kant, S. Yadav, N. K.	Microchem. Journal, **2020**, 160, 105597.	Experimental and theoretical investigations for selective colorimetric recognition and determination of arginine and histidine in vegetable and fruit samples using bare-AgNPs	Elsevier (5.1).
45.	J. Korram, L. Dewangan, I. Karbhal, R. Nagwanshi, S.K. Vaishanav, K.K. Ghosh, M.L. Satnami	RSC Adv. **2020**, *10*, 24190–24202	CdTe QD-based inhibition and reactivation assay of acetylcholinesterase for the detection of organophosphorus pesticides	RSC (3.1)
46.	Nisha Chhetri, S.A. Bhoite, A.K. Singh, Bhawana Jain	Indian J. Chem. A; **2020,** 59(A), 551-562,	Effect of micelles on hydrolysis of di-2,3-dichloroaniline phosphate	NIScPR-CSIR, (0.4)
(2021)				
47.	S. Sahu, S. Sharma, T. Kant, K. Shrivas, K.K. Ghosh	Spectrochim. Acta A, **2021**, 246, 118961-118969	Colorimetric Determination of L-Cysteine in Milk Samples with Surface Functionalized Silver Nanoparticles	ELSEVIER (4.3)
48.	L.K.S. Tanwar, M.K. Banjare, S. Sharma, K.K. Ghosh	Chem. Phys. Lett, 769, **2021**, 138399	Physicochemical studies on the micellization of anionic surfactants in the presence of long alkyl chain ionic liquid	ELSEVIER (2.8)
49.	L.K.S. Tanwar, S. Sharma, K.K. Ghosh	Main Group Chemistry, 20, **2021**, 1-18	Spectroscopic detection of Hg^{2+} in water samples using fluorescent carbon quantum dots as sensing probe	SAGE Publications Ltd (0.6)
50.	B. Sahu, R. Kurrey, M.K. Deb, K. Shrivas, I. Karbhal, B.R. Khalkho	RSC Adv. **2021,** 11(34), 20769-20780	A simple and cost-effective paper-based and colorimetric dual-mode detection of arsenic (III) and lead (II) based on glucose-functionalized gold nanoparticles	RSC (3.9)
51.	A. Saha, B.R. Khalkho, M.K. Deb	RSC Adv. **2021,** 11(33), 20380-20390	Au–Ag core–shell composite nanoparticles as a selective and sensitive plasmonic chemical probe for l-cysteine detection in Lens culinaris (lentils)	RSC (3.9)
52.	M. Mahilang, M.K. Deb, S. Pervez, S. Tiwari, V.K. Jain	Environ. Res., **2021,** 195, 110802	Biogenic secondary organic aerosol formation in an urban area of eastern central India: seasonal variation, size distribution and source characterization	Elsevier (8.4)
53.	B.R. Khalkho, R. Kurrey, M.K. Deb, I. Karbhal, B. Sahu, S. Sinha, Y.K. Sahu.	New J. Chem., **2021,** 45 (3), 1339-1354	A simple and convenient dry-state SEIRS method for glutathione detection based on citrate functionalized silver nanoparticles in human biological fluids	RSC (3.3)
54.	M. Mahilang, M.K. Deb, S. Pervez	Chemosphere, **2021,** 262,127771	Biogenic secondary organic aerosols: A review on formation mechanism, analytical challenges and environmental impacts	Elsevier (6.5)

55.	T. Kant, K. Shrivas, K. Tapadia, R. Devi, V. Ganesan, M. K. Deb	New J. Chem., **2021**, 45, 8297–8305.	Inkjet-printed paper-based electrochemical sensor with gold nano-ink for detection of glucose in blood serum	RSC (3.3)
56.	K. Dewangan, D. Singh, S. K. S. Patel, K. Shrivas	New J. Chem., **2021**, 45, 6129-6135.	Temperature-programmed nitridation of monodispersed VO x nanoparticles into nanocrystalline superconducting oxygen-doped vanadium nitride	RSC (3.3)
57.	M. Verma, S. Pervez, J.C. Chow, Di. Majumdar, J.G. Watson, Y.F. Pervez, M.K. Deb, K. Shrivas, V.K. Jain, N.A. Khan, P. Mandal, R.K. Chakrabarty	Atmos. Poll. Resea., **2(** 12, 101142	Assessing the magnitude of PM2.5 polycyclic aromatic hydrocarbon emissions from residential solid fuel combustion and associated health hazards in South Asia	Elsevier (3.9)
58.	A. Mishra, S. Pervez, C. Candeias, M. Verma, S. Bano, P. Dugga, S.R. Verma, A. Tamrakar, S. Shafi, Y.F. Pervez, V. Gupta	J. Indian Chem. Soc., **2021,** 98, 100212.	Bioaccessiblity features of particulate bound toxic elements: Review of extraction approaches, concentrations and health risks	Elsevier (0.2)
59.	A.R. Shaikh, M. Chawla, A.A. Hassan, I. Abdulazeez, O.A. Salawu, Md. N. Siddiqui, S. Pervez, L. Cavallo	J. Mol. Liq., **2021, 337**, 116433	Adsorption of industrial dyes on functionalized and nonfunctionalized asphaltene: A combined molecular dynamics and quantum mechanics study.	Elsevier (5.3)
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61.	D.K. Sahu, M.K. Banjare, R.K. Banjare, J. Goswami, J. Rai, M.K. Rai, C. Bhatt	J. Indian Chem. Soc., **2021,** 98 (12), 100261	Colorimetric technique for the detection of carbofuran and its application in various environmental samples	Elsevier (0.2)
62.	D.K. Sahu, M.K. Banjare, R.K. Banjare, J Goswami, J. Rai, M.K. Rai, C. Bhatt	J. Indian Chem. Soc., **2021,** 98 (9), 100138	Extraction of acephate pesticide in environmental and agricultural samples by spectrophotometric method	Elsevier (0.2)
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65.	L.K.S. Tanwar, S. Sharma, K.K. Ghosh	Colloids Surf. A Physicochem. Eng. Asp., **2022**, 636, 128159	Interaction of an imidazolium based ionic liquid with antidepressant drugs: A physicochemical study	Elsevier (4.9)

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68.	R. Kurrey, A. Saha, S. Sinha, Y. Sahu, M. Khute, B. Sahu, M.K. Deb	Results Chem., **2022,** 14,100456,	Recent advances on analytical methodologies for screening and detection of biophenols and their challenges: A brief review	Elsevier (2.3)
69.	B.R. Khalkho, M. K. Deb, R. Kurrey, B. Sahu, A. Saha, T. K. Patle, R. Chauhan, K. Shrivas	Spectrochim. Acta Pt. A-Molec. Biomolec. Spectr., **2022**, 267, 120523	Citrate functionalized gold nanoparticles assisted micro extraction of L-cysteine in milk and water samples using Fourier transform infrared spectroscopy	Elsevier (4.4)
70.	T.K. Patle, K. Shrivas, A. Patle, S. Patel, N. Harmukh, A. Kumar	Microchem. J., **2022,** 176, 107249	Simultaneous determination of B1, B3, B6 and C vitamins in green leafy vegetables using reverse phase-high performance liquid chromatography.	Elsevier (4.8)
71.	T. Kant, K. Shrivas I. Karbhal, Monisha, S. Yadav, Tikeshwari, S. Sahu, Y.K. Mahipal and V. Ganes	New J. Chem., **2022**, 46, 1362-1370	A graphene-printed paper electrode for determination of H2O2 in municipal wastewater during the COVID-19 pandemic	RSC (3.3)
72.	L. Dewangan, J. Korram, I. Karbhal, R. Nagwanshi, K.K. Ghosh, S. Pervez, M.L. Satnami	Ind. Eng. Chem. Res., **2022** 61, 3636-3646.	Alkaline phosphatase immobilized CdTe/Zns quantum dots for dual-purpose fluorescent and electrochemical detection of methyl paraoxon.	ACS (4.2)
73.	S. Sahu, K. K. Ghosh	Anal. Methods**, 2022**, 14, 3323-3334	Selective detection of tartaric acid using amino acid interlinked silver nanoparticles as a colorimetric probe	RSC (2.7)
74.	J. Lakra, D. Tikariha Jangde, B. Kumar, K.K. Ghosh	Chem. Thermodyn. Therm. Anal., **2022,** 8 100089.	Micellization properties of quinolinium based surfactants: 1-alkylquinolinium bromide and 6-hydroxy-1-kylquinolinium-bromide by fluorimetry, conductivity and surface tension measurements and its parameters	Elsevier (1.5)

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76.	B. Sahu, R. Kurrey, B.R. Khalkho, M. K. Deb	Colloids Surf. A Physicochem. Eng. Asp.,**2022**, 664, 129947	α-Cyclodextrin functionalized silver nanoparticles as colorimetric sensor for micro extraction and trace level detection of chlorpyrifos pesticide in fruits and vegetables	Elsevier (5.5)
77.	S.R. Verma, S. Pervez, P. Mandal, J.C. Chow, J.G. Watson, S.M. Andrabi, M. Verma, P. Dugga, N.A. Khan, Y.F. Pervez, A. Mishra, M.K. Deb, I. Karbhal, S. Tiwari, K.K. Ghosh, K. Shrivas, M.L. Satnami	ACS Earth Space Chem., **2022**, 6, 12, 2919–2928	Atmospheric Abundance of $PM_{2.5}$ Carbonaceous Matter and Their Potential Sources at Three High-Altitude Glacier Sites over the Indian Himalayan Range	ACS (3.4)
78.	A. Tamrakar, S. Pervez, M. Verma, D. Majumdar, Y.F. Pervez, C. Candeias, P. Dugga, A. Mishra, S.R. Verma, M.K. Deb, K. Shrivas, M.L. Satnami, I. Karbhal	Water Air Soil Pollut., **2022,** 233, 411.	BTEX in Ambient Air of India: a Scoping Review of their Concentrations, Sources, and impact	Springer (3.8)
79.	S. Patel, K. Shrivas, D. Sinha, Monisha, T.K. Patle, S.Yadav, S. Thakur, M.K. Deb, S. pervez	Food Chem., **2022,** 383, 132449	Smartphone-integrated printed-paper sensor designed for on-site determination of dimethoate pesticide in food sample	Elsevier (8.8)
80.	L. Dewangan, Y. Chawre, J. Korram, I. Karbhal, R. Nagwanshi, V. Jain, M.L Satnami	Microchem. J. **2022**,182, 107867	N-Doped, Silver, and Cerium Co-doped Carbon Quantum Dots Based Sensor for Detection of Hg2+ and Captopril.	Elsevier (4.9)
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81.	R. Suryawanshi, R. Kurrey, S. Sahu, K. K. Ghosh.	RSC Adv., **2023**, 13, 701	Facile and scalable synthesis of un-doped, doped and co-doped graphene quantum dots: a comparative study on their impact for environmental applications	RSC (3.73)
82.	I.V. Kapitanov, S.M. Sudheer, T. Yadav, K.K. Ghosh, N. Gatherhood, V.K. Gupta, Y. Kaprichev	Mol., **2023**, 28,4185	Sustainable Phenylalanine-Derived SAILs for Solubilization of Polycyclic Aromatic Hydrocarbons	MDPI (4.2)

83.	S. Sinha, I. Karbhal, M.K. Deb, A. Saha, R. Nayan, R. Kurrey, S. Pervez, K.K. Ghosh, S.S. Thakur, M.K Rai, M.L Satnami, K. Shrivas	Carbon Trends, **2023**, 10,100248	Nitrogen and Sulphur co-doped Graphene: A Robust Material for Methylene Blue Removal	Elsevier (3.1)
84.	B. Sahu, R. Kurrey, M.K. Deb, B.R. Khalkho, S. Manikpuri	Talanta, **2023**, 259 124526	Recognition of malathion pesticides in agricultural samples by using α-CD functionalized gold nanoparticles as a colorimetric sensor	Elsevier (6.18)
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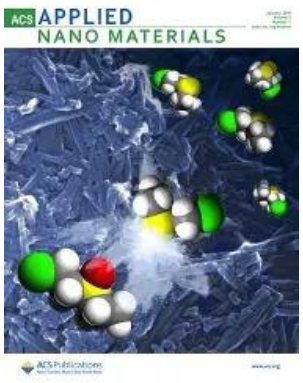
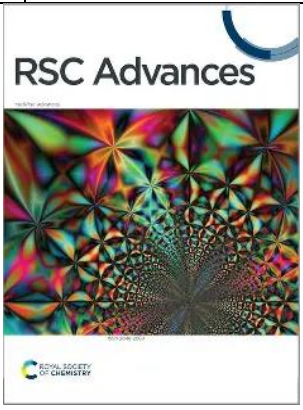
86.	P. Miri, I. Karbhal, M L. Satnami, V.K. Jena, S. Ghosh	ACS Appl. Bio Mater. **2023**, 6, 1488−1494	β-Cyclodextrin Stabilized Nanoceria for Hydrolytic Cleavage of Paraoxon in Aqueous and Cationic Micellar Media	ACS (4.7)
87.	Y. Chawre, M.L. Satnami, A.B Kujur, K.K. Ghosh, R. Nagwanshi, I. Karbhal, S. Pervez, M.K. Deb	ACS Appl. Nano Mater, **2023,** 6, 9, 8046–8058.	Förster Resonance Energy Transfer between Multicolor Emissive N-Doped Carbon Quantum Dots and Gold Nanorods for the Detection of H2O2, Glucose, Glutathione, and Acetylcholinesterase	ACS (6.14)
88.	Tikeshwari, K. Shrivas, S. Patel, Monisha, T. Kant, S.S. Thakur, S. Pervez, M.K. Deb, K.K. Ghosh	ACS Food Sci. Technol, **2023**, 3, 1824-1834	Dual-Mode Plasmonic and Paper-Based Colorimetric Assays for the Determination of Riboflavinin Green Leafy Vegetables and Whole Grains	ACS (2.6)
89.	Monisha, T. Kant Tikeshwari, K. Shrivas, A. Kumar, K. Dewangan	Mater. Chem. Phys., **2023**, 307, 128161	Graphene-silver nano-ink for inkjet printing of paperelectrodeforelectrochemicalsensin gof4- nitrophenol	Elsevier (4.3)
90.	S.R. Verma, S. Pervez, J.C. Chow, J.G. Watson, S. Muzaffarali, A.P. Mandal, N.A. Khan, S. Tiwari, U. Chandra Dumka, R.K. Chakrabarty, M. Verma, Y.F. Pervez, A. Mishra, A. Tamrakar, H.N. Sowmya, M.K. Deb, K.K.	ACS Earth Space Chem., **2023**, **7**, 1536-1544	Optical Properties of Fine Mode Aerosol sover High-Altitude Himalayan Glacier Regions	ACS (2.9)

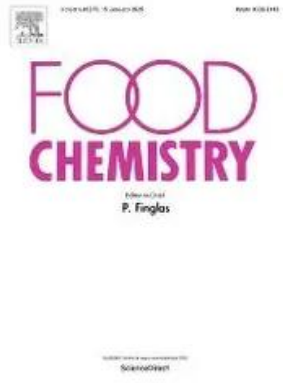
	Ghosh, V.K. Jain, I. Karbhal, K. Shrivas, M.L. Satnami			
91.	V. Dixit, R. Nayan, S. Sinha, S. Manikpuri, M.L. Satnami, K.K. Ghosh, M.K. Deb, S. Pervez, I. Karbhal	(JRU) Part-B, **2023**, 36, 60-71	Rice Straw-Derived Carbon Integrated with PANI: As an Electrode Material for High- performance Super capacitor	
92.	T. Kant, K. Shrivas, A. Tejwani, K. Tandey, A. Sharma, S. Gupta	Nanoscale, **2023**, 15, 19016-19038	Progress in the design of portable colorimetric chemical sensing devices	RSC (5.8)
(2024)				
93.	L.K.S. Tanwar K.K. Ghosh	(JRU) Part-B, **2024,** 37, 72-87	Studies on the Interaction of Imidazolium Ionic Liquids with Human Serum Albumin	
94.	R. Jamunkar, D. Sinha, T.K. Patle, K. Shrivas	(JRU) Part-B, **2024**, 37, 152-187	A Review on Extraction, Identification and Application of Pesticidal Active Phyto derived Metabolites	
95.	N. Singh, S. Sharma, K.K. Ghosh, B. Gupta, K. Kuca	Curr. Top. Med. Chem **2024**, 24, 1120-1133	Prominent Perspective on Existing Biological Hallmarks of Alzheimer's Disease	Bentham Science (2.9)
96.	S. Sinha, M.K. Deb, I. Karbhal, S. Manikpuri, R. Nayan, B. Markande	(JRU) Part-B, **2024**, 37, 88-111	Basic and Advanced Logical Concept Derived from Surface Enhanced Infrared Spectroscopy (SEIRS) as Sensing Probe for Analysis of Chemical Species: A Brief Review	
97.	D. Sahu S. Pervez, 1. Karbhal, A. Tamrakar, A. Mishra, S.R. Verma, M.K. Deb, K.K. Ghosh, Y.F. Pervez, K. Shrivas, M.L. Satnami	Desalin. Water Treat., **2024**, 317, 100253	Applications of Different Adsorbent Materials for the Removal of Organic and Inorganic Contaminants from Water and Wastewater-A Review, Desalination and Water Treatment	Elsevier (1.08)
98.	K. Tandey, K. Shrivas, A. Sharma, T. Kant, A. Tejwani, M.K. Deb, S. Pervez, K.K. Ghosh	Coord. Chem. Rev., **2024**, 514, 215919	Nanomaterial-enabled portable paper-based colorimetric and fluorometric devices: Progress in point-of-care diagnosis	Elsevier (20.3)
99.	A. Minj, S. Sahu, L.K.S. Tanwar K.K. Ghosh	RSC Adv., **2024**,14, 19271-19283	Au@Ag nanoparticles: An Analytical Tool to Study the Effect of Tyrosine on Dopamine Levels	RSC (3.9)

100.	A.B. Kujur, M.L. Satnami, Y. Chawre, P. Miri, A. Sinha, R Nagwanshi, I. Karbhal, K.K. Ghosh	RSC Adv., **2024**, 14, 20093-20104	Inner-filter effect of nitrogen-doped carbon quantum dots–MnO2nanotubesforsmartphone-integrated dual-mode sensing of glutathione and captopril	RSC (3.9)
101.	R. Nayan, S. Sinha, V. Dixit, M.L. Satnami, K. K. Ghosh, S. Pervez, M.K. Deb, K. Shrivas, M.K. Rai, S.G. Yenchalwar, K. Wasnik, S. R. Jadkar, I. Karbhal	J. Energy Storage, **2024**, 96, 112668	PANI-Grafted Boron, Nitrogen Co-Doped Carbon Fiber: An Outstanding, High- Performance Super capacitor Electrode	Elsevier (8.9)
102.	R. Tembekar, K.K. Ghosh, A. Minj, A. Katendra	(JRU) Part-B, **2024**, 37, 206-240	Surface Modified Magnetic Nanoparticles as an Efficient Material for Wastewater Remediation: A Review	
103.	A. Sharma, S. Gupta, K. Shrivas, T. Kant	J. Food Compos. Anal., **2024**, 135, 106568	Progress in Analytical methods for monitoring of heavy metals and Metalloid in milk and global health risk assessment	Elsevier (1.99)
104.	P. Chandravanshi, A. Tejwani, T. Kant, M.K. Deb, K. Shrivas	(JRU) Part-B, **2024**, 37, 9-19.	A Low-cost disposal pencil electrode for cyclic voltammetry analysis	
105.	A.B. Kujur, M.L. Satnami, Y. Chawre, P. Miri, A. Sinha, R. Nagwanshi, I. Karbhal, K.K. Ghosh, S. Pervez, M.K. Deb	RSC Advances, **2024**, 14, 20093-20104	Inner-filter effect of nitrogen-doped carbon quantum dots-MnO2 nanotubes for smartphone-integrated dual-mode sensing of glutathione and captopril	RSC (3.9)
106.	G. Sahu, Y. Chawre, A.B. Kujur, P. Miri, A. Sinha, R. Nagwanshi, I. Karbhal, K.K. Ghosh, V.K. Jena, M.L. Satnami	J. Fluoresc., **2024,** 1-13	Nitrogen Doped Carbon Quantum Dots as Fluorescence "Turn-Off-On" Sensor for Detection of Fe^{3+} Ions and Ascorbic Acid in Moringa oleifera and Citrus Lemon	Springer (2.6)
107.	A. Sharma, S. Gupta, K. Shrivas, S. Chakradhari, S. Pervez, M.K. Deb	Food Chem. Toxicol., **2024**, 196, 115178	Heavy Metals contamination in cow and buffalo milk from industrial areas of Raipur, India: A health risk assessment	Elsevier (4.60)
108.	P. Miri, M.L. Satnami, S. Ghosh, R. Nagwanshi, I. Karbhal, V. Jain, Y. Chawre, A.B. Kujur, A. Sinha, K.K. Ghosh, S. Pervez, B. Gupta	ACS Appl. Nano Mater., **2024,** 7, 19657-19667	Assessment of Acetylcholinesterase Activity Using the Gold Nanocluster–MnO_2 Nanosheet Pair for Detection of Paraoxon	ACS (5.3)

109.	S.K. Vaishanav, J. Korram, T.K. Verma, S.K. Jadhav, R. Nagwanshi, M.L. Satnami	J. Fluoresc, **2024**, 34, 833–846	Antibacterial Activity of CdTe/ZnS Quantum Dot-β Lactum Antibiotic Conjugates	Springer (2.6)
110.	N. Raghuvashi, B. Gupta, V. Joshi, S.S. Bisht, M. Manikpuri, K. Shukla, D. Khokhar, N. Singh, K.K. Ghosh	Chem. Biodivers., **2024**, 22, e202400966	Influence of Essential Oil Composition on Antioxidant and Antibacterial Activities of Three Cultivars of Cymbopogon Flexuosus: In Vitro and In Silico Study	Wiley (2.97)
111.	R.A. Banjara, A.Kumar, R. Kumar Aneshwari, M.L. Satnami, S.K. Sinha	Environmen. Nanotechnol. Monit. Manag., **2024**, 22, 100988	A comparative Analysis of chemical vs green synthesis of nanoparticles and their various applications	Springer (8.89)
112.	A. Shukla, S. Ramteke, B.L. Sahu, M.K. Deb	(JRU) Part-B, **2024,** 37, 39-45	Fourier Transform Infrared Spectroscopy (FTIR) Spectral Evaluation in Chrysanthemum flower species	
113.	S. Sinha, I. Karbhal, M.K. Deb, A. Saha, S. Manikpuri, N.K. Chandrawanshi, D. Koreti, Khemraj, R. Nayan	Inorg. Chem. Commun., **2024**, 169, 113044	Multifunctional silver nanopartiucles decorated N, S co-doped graphene as a sensitive colorimetric probe for L-cysteine detection as an antibacterial agent	Springer (4.4)
114.	A. Saha, R. Kurrey, M.K. Deb	Heliyon, **2024**, 10, e37856	Resin bound gold nanocomposites assisted SE/ATR-FTIR spectroscopy for detection of pymetrozine insecticide in vegetable samples	Heliyon, (3.4)





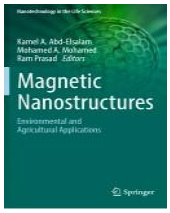


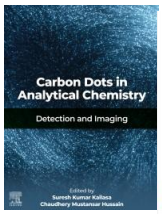
LIST OF PUBLICATIONS (2025)

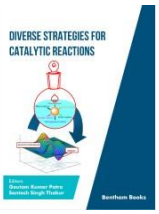
(2025)				
S. No.	**Author Name**	**Publication**	**Title of Research**	**Journal**
1	A. Mishra, S. Pervez, Y.F. Pervez, M. Verma, P. Dugga, S.R. Verma, I. Karbhal, K.K. Ghosh, M.K. Deb, M.L. Satnami, K. Shrivas	Environ. Geochem. Health, **2025**, 47:72	Particulate toxic elements' oxidative potential and gastrointestinal bioaccessibility features in the vicinities of coal-fired mineral processing industries, India	Springer (3.2)
2	B.S. Banjare, M.K. Banjare, N. Sarkar, K. Behera, D. Baghel B. Barman, S. Chandrawanshi, R.K. Aneshwari, I. Karbhal, M.L. Satnami, K.K. Ghosh	Cleaner Chemical Engineering. **2025,** May 7:100179.	Physicochemical insight of phosphonium-based ionic liquid with carbocyclic sugar-based inositol derivative	Elsevier (9.8)
3	R. Jamunkar, D. Sinha, K. Shrivas, T.K. Patle, A. Kumar, K. Tandey, T. Singh	J. Mol. Struct., **2025,** 15;1335:141882	Ultrasound-assisted extraction and RP-HPLC quantification of β-caryophyllene in plant essential oils: Separation efficiency and insecticidal activity	Elsevier (4.0)
4	M.K. Banjare, K. Behera, M.A. Rub, K.K. Ghosh.	RSC Advances. **2025,** 15(20):15879-92.	Micellization behavior of an imidazolium surface-active ionic liquid within aqueous solutions of deep eutectic solvents: a comparative spectroscopic study	RSC (3.9)
5	A. Tejwani, U. Sonkar, K. Shrivas, K. Tandey, I. Karbhal, M.K. Deb, S. Pervez	.RSC Advances. **2025,** 15(20):15870-8.	Differential pulse voltametric detection of dopamine using polyaniline-functionalized graphene oxide/silica nanocomposite for point-of-care diagnostics.	RSC (3.9)
6	V. Rathore, K. Jain, N. Singh, A. Galhotra, S. Patel, S. Pervez, R. Yadav, P. Chowdry, A. Chandrakar, A. Saha.	Kidney Int. Rep. **2025**, 1;10(2):S322-3.	WCN25-3833 Prevalence and Characteristics of Chronic Kidney Disease in Endemic Villages of Chronic Kidney Disease of Unknown Etiology in Gariyaband District of Chhattisgarh.	kireports.org (5.7)
7	S. Sinha, R. Nayan, V. Dixit, M.L. Satnami, S. Pervez, S. Manikpuri, I. Karbhal, M.K. Rai, M.K. Deb	Next Research. **2025,** 26:100368.	Polyaniline and N, S co-doped Graphene Nanocomposite for Efficient Energy Storage.	Elsevier
8	N. Raghuvanshi, U. Patel, K. Sharma, V. Joshi, H. Bisht, M. Manikpuri, N.	ACS Food Sci. Technol., **2025**, 28;5(4):1645-56.	Assessment of Cumin Essential Oil-Loaded Nanoemulsions for Shelf-Life Enhancement of Indian Cottage Cheese	ACS (2.6)

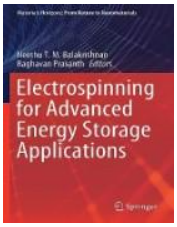
	Singh, B. Gupta, K.K. Ghosh, M.L. Satnami			
9	A. Sharma, S. Gupta, K. Shrivas, S. Chakradhari, S. Pervez, M.K. Deb	Food Chem. Toxicol., **2025** Feb 1;196:115178.	Heavy metal contamination in cow and buffalo milk from industrial and residential areas of raipur, India: A health risk assessment	Elsevier (4.3)
10	M.K. Banjare, D.K. Tandon, K. Behera, B.S. Banjare, I. Karbhal, M.A. Rub, M.L. Satnami, K.K. Ghosh	J. Dispers. Sci. Technol.,	Effect of L-tyrosine on the micellar characteristics of various surfactants :a comparative study of the amino acid–surfactant interactions	Taylor & Francis Group, LLC (2.0)

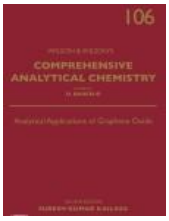
BOOK CHAPTERS

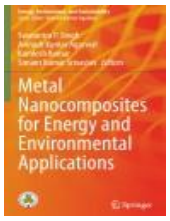












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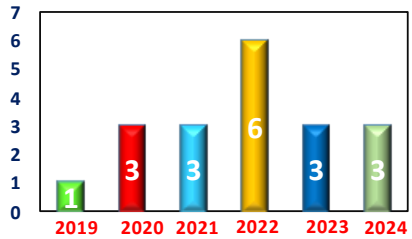

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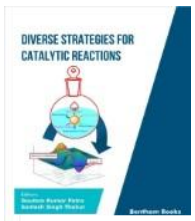

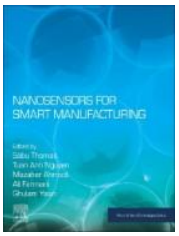

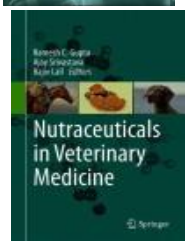

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1.	Prof. Kamlesh K. Shrivas	Magnetic Nanostructures: Environmental and Agricultural Applications,	Application of Magnetic Nanoparticles for Removal of Pesticides from Environmental Samples Prior to Instrumental Analysis, Chapter-13: 2019, 247-249,	International	2019	978-3-030-16438-6	Springer Nature
2.	Prof. Kamlesh K. Shrivas	Multifunctional Hybrid Nanomaterials for Sustainable Agricultural Food and Ecosystem	Hybride nanomaterials as chemical sensors,	International	2020	Paperback ISBN: 9780128213544: eBook ISBN:9780128213599	Elsevier
3.	Prof. Kallol K. Ghosh	Nutraceuticals in veterinary medicine	Plant and food derived immunomodulators as Nutraceuticals for performance enhancing activities	International	2020	978-3-030-04623-1	Springer
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			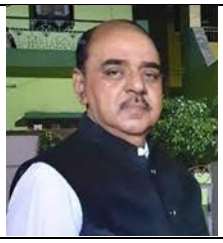	
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			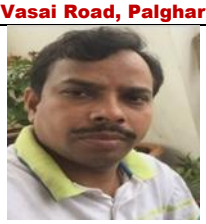	
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